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ABSTRACT

Eight contributed papers given at a general session of the International Federation of Library Associations and Institutions 1992 annual meeting are presented. These papers deal with a variety of library issues, and are generally, but not exclusively, focused on developing countries. The following papers are included: (1) "Community Information Centres in the Developing Countries with Special Reference to India" (V. Venkatappaiah and T. V. Prafulla Chandra); (2) "Managing University Libraries in Southern Africa in the 1990s: Perception of Challenges and Solutions" (L. Pakkiri); (3) "Thailand's Experiences in Strengthening Information Infrastructure: An Example of an Attempt To Develop the Asia and Oceania Information Infrastructure" (K. Choochuay); (4) "Information Policies and Government Guidance in Nigeria: What Hope for Rural Communities?" (L. I. Diso); (5) "Library and Information Services for Disabled Individuals" (S. Mishra); (6) "CD-ROM Implementation in Developing Countries: Impacts for Improving Services" (M. Keylard); (7) "National Information Policy and the Third World Countries" (K. Navalani); and (8) "Manpower Preparation for Development and Implementation of Information Policies" (S. ur Rehman). (SLD)

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CONTRIBUTED PAPERS SESSION

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COMMUNITY INFORMATION CENTRES IN THE DEVELOPING COUNTRIES WITH SPECIAL REFERENCE TO INDIA

Dr V Venkatappaiah*

T V Prafulla Chandra**

*Dr. V. Venkatappaiah, Vice President, Indian Library Association, H.No. 4-22-29 Ithanagar, TENALI 522 201, Andhra Pradesh, INDIA.

**Mr. T.V. Prafulla Chandra, Professional Assistant, Central Institute of English and Foreign Languages, Hyderabad 500 007, INDIA.

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COMMUNITY INFORMATION CENTRES IN THE DEVELOPING COUNTRIES WITH SPECIAL REFERENCE TO INDIA

Dr V Venkatappaiah*

T V Prafulla Chandra**

In the developing countries, there are vast segments of population which are information poor. They are unable to take advantage of the social welfare programmes and participate in the development process due to ignorance and lack of reliable, up-to-date and complete information. As a result, the feudal landed gentry, vested political leaders and business communities are successfully sabotaging the development programmes and economic reforms. Establishment of Community Information Centres (CICs) will be a major step towards effective and efficient dissemination of development communication to the masses, particularly in the rural areas.

THE CONCEPT OF COMMUNITY INFORMATION

The expression "Community Information" (CI) was first used in the U.S. to describe the services introduced as a

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*Dr. V. Venkatappaiah, Vice President, Indian Library Association, H.No. 4-22-29 Ithanagar, TENALI 522 201, Andhra Pradesh, INDIA.

**Mr. T.V. Prafulla Chandra, Professional Assistant, Central Institute of English and Foreign Languages, Hyderabad 500 007, INDIA.

follow-up action to the Kahn Report on British Citizens Advice Bureaux.[1] In 1960s as part of the American War on Poverty Programme, a number of libraries introduced information and referral services with the following two major aims:

1) To link the client with a problem to the appropriate agency that could answer his or her need.
2) To supply the service providers with feedback from users.

The term CI was coined to describe the above services as these were neighbourhood-based and serving as signposts to charities and services available within the welfare system.

The Library Association (London) defines Community Information Services (CISs) as "services which assist individuals and groups with daily problem-solving and with participation in the democratic process. The services concentrate on the needs of those who do not have ready access to other sources of assistance and on the most important problems that people have to face, problems to do with their homes, their jobs and their rights."[2]

According to A. Bunch, who first attempted synthesization of CI, CI has two common aspects:[3]

1) Providing information in the community to help people with daily problem solving or in raising the quality of their lives.
2) Concerned with a specific clientele, namely, those who belong to the lower socio-economic groups or are disadvantaged through an inability to obtain, under-

stand, or act on information that affects their lives.

J.C. Donohue, one of the earliest creators of CIS, stated that the following two types of information should be provided by CISs:

1) Survival information such as that related to health, housing, income, legal protection, economic opportunities, political rights, etc. (Information and Referral).
2) Citizen action information, needed for effective participation as individual or as members of a group in the social, political, legal, economic process. (Public Policy Information)

John C. Durrance feels that if we add a third type of information, namely, local information, to the above two, then we can have a comprehensive definition of CISs.[4] Local information is such information as appropriate and useful to the community, including a calendar of local events, courses and other educational opportunities, and basic information concerning government agencies, local organisations, fraternal groups and clubs.

For the sake of convenience, we may consider CI as a broad term which includes the following three services: 1) Information and Referral; 2) Provision of Public Policy Information; and 3) Provision of Local Information.

ROLE OF PUBLIC LIBRARIES IN CISs

Public libraries, both urban and rural, have a crucial role to play in the provision of CISs.

1) Information and Referral: This concept, which was borrowed by libraries from the social service delivery system, includes:

--file preparation and maintenance;

--identifying the problem;

--simple and complex information giving; and

--advice, steering, referral, escort, follow-up, practical help, counselling, advocacy and feedback.

In a developing country such as India characterised by low literacy, poor purchasing power and conservatism, it is not enough if just information on services outside the library is provided. A large number of people require assistance in choosing the course of action from the available alternatives, that is, advisory services. To begin with, information and referral services may be introduced for specific target groups such as rural disadvantaged, elderly, adult learners, etc.

2) Provision of Public Policy Information: Public policy information tries to help the public to solve community problems, to improve communication among the local community groups to tackle various policy issues in a more understandable and effective manner. Its target group includes planning bodies, municipalities, government departments and local leaders/ community groups. It can cover any area of public policy such as environment, land use, transport, crimes, health, etc. For

providing public policy information services, the librarians would have to collect government documents such as policy statements, official orders, legislative debates, court records and legislative propositions relating to public issues.

3) Provision of Local Information: Public libraries can develop CI files. These can pertain to information about voluntary service bodies, social organisations, educational courses, employment opportunities, calendar of local cultural events, etc. Such files should include details like names and addresses of contact persons, phone numbers, etc.

CISs AND INDIA'S NATIONAL LIBRARY AND INFORMATION POLICY

In October 1985, the Government of India appointed a Committee under the chairmanship of Prof. D.P. Chattopadhyaya to prepare a draft of National Policy on Library and Information System (NAPLIS). The draft of NAPLIS, submitted to the Government of India in March 1986, has strongly emphasized the need for provision of information services to citizens. It included the following under the heading "Objectives of National Policy":

> Library and information sources are vital for all sectors of national activity. The availability of information, expeditiously and pinpointedly, supports all decision making processes at all levels. Relevant information accelerates the pace of national development. An informed citizen is an asset to a democratic system of government

> and the proper utilisation of information can improve the quality of citizens....[5]

Further, it stated that the following should be one of the main aims of the national library and information policy:

> To foster, promote and sustain, by all appropriate means, the organisation, availability and use of information in all sectors of national activity.

It is heartening to note that Prof. Chattopadhyaya Committee had stated that the main thrust in the area of public library system should go to the rural public library. It said:

> A village or a village cluster with an adequate population should have a community library which will also serve as an information centre. Resources of different agencies engaged in the work of public health, adult education, local self-government and such others may be pooled to build up the composite centre.

In March 1986, the Government of India appointed another committee called Empowered Committee under the chairmanship of Prof. D.P. Chattopadhyaya to suggest what recommendations of NAPLIS report should be adopted. The Empowered Committee in its report submitted in March 1988 underlined the importance of community library and information centre. It said:

> NAPLIS has recommended that the main thrust should go to the rural public library which should be developed like a community library and information centre. It will

serve all sections of the community--the adult and the children, the literate and the illiterate through reading materials and audio-visual packages. Such a rural library or community centre library should be developed by pooling the resources of different Central Government and State Government agencies engaged in rural developmental activities. The Empowered Committee feels that this kind of rural library service should be made available in each village under the Minimum Needs Programme by 2000 A.D.[6]

PIONEER ATTEMPTS IN INDIA

During the pre-Independence period (before 1947 A.D.), the public libraries in the Andhra region of India were rendering services what are now being referred to as CISs. The public library movement in this region was not just limited to the establishment of libraries and providing reading and lending facilities; in fact, public libraries became focal and rallying points for many a social movement of that period such as struggle for independence, social reforms movement, upliftment of the downtrodden such as Harijans, weaker sections, women's liberation movement, rural reconstruction movement, adult education movement, etc. They became centres for all social and cultural activities of the village and also catered to all the information requirements of rural folk. Public libraries established and maintained symbiotic relationships with most of these social movements. Apart from imparting knowledge and education, public libraries strived hard to offer, through library service, solutions to various

socio-economic problems of the people in those times. This had been the distinctive feature of public library movement in the Andhra region.

Public libraries evolved as centres of social change and became an integral part of the society playing a variety of roles such as a school, people's university, adult education centre, cooperative society, women and child welfare centre, gram panchayat, etc. Through dedicated and inspired leadership and enthusiastic workers, public library movement eminently succeeded in offering CISs to the masses. These services satisfied the information needs of the people and raised their awareness level. As a result, the people were able to solve their problems--both social and individual. CISs also helped in the development process and optimum utilisation of human and material resources. For example, librarians provided to the people useful information relating to the land survey and revenue, animal husbandry, agriculture, etc. thereby convincing them about the utility of public libraries. Apart from public libraries in Andhra region, those located in other states such as Tamilnadu, Kerala, West Bengal, Karnataka and Gujarat offered some sort of CISs during the pre-Independence period.

CICs: A STEP TOWARDS DEVELOPMENT COMMUNICATION

A national network of CICs needs to be developed in India for the dissemination of general and development-oriented information to the masses. Information plays a pivotal role in the development of a country. We have to ensure that proper

communication channels are made available for efficient distribution of information.

In a developing country like India with low literacy rate, multilingualism, poor communication facilities and conservatism, it is a gigantic task to disseminate information. If we have to enlist people's participation in the nation building, then we have to provide them with latest and comprehensive information about various development programmes. Electronic media such as TV and radio, which have greater impact on illiterates and are more appealing, can be effectively used for dissemination of CI.

Although India has made much progress in terms of media expansion--both print and electronic--information is not percolating to the rural masses. The present public library infrastructure could be utilised for offering CISs. A part of the public library staff could be given specialised training in the collection, storage and dissemination of CI.

CISs can be introduced in the Indian public libraries in a phased manner. In the first phase, all the State Central Libraries (29), City Central Libraries (14) and District Central Libraries (392) in various States and Union Territories could be covered. In the second phase, all the sub-divisional/taluk/tehsil libraries (540) and block or town libraries (3500) may be included. The major goal of this plan should be to ensure that by the end of the Eighth Five Year Plan period, all State Central Libraries, City Central Libraries, District Central Libraries, sub-divisional/taluk/tehsil libraries and block or town libraries offer CISs to their clientele.

The collection and compilation of CI, its storage and

dissemination is a highly specialised task. In this process, the expert advice of librarians, communication scholars and administrative personnel has to be obtained. A survey of the information needs of the target group should be done on scientific lines. In the collection and management of CI, the assistance and support of various government, non-government and voluntary organisations needs to be obtained. Vigorous efforts should be made to ensure that CISs reach not only the traditional regular users of public libraries but also the partial users and non-users. Adequate and reliable mechanisms may be included to ensure feedback from the target group so as to know about the lacuna in CISs and for taking necessary corrective steps.

In developing countries such as India where more than three-fourths of the population is in rural areas, the villager should form the focus of the whole CI programme. The existing social organisations/agencies/government departments such as post offices, marketing societies, public health centres, schools, etc. should be involved in the CI programme. Also, the government employees engaged in administration and development programmes such as village development officers, village assistants, etc. should be motivated to participate in the CI programme so as to ensure its success.

The motto of the CI programme should be not only to satisfy the expressed information needs of the rural masses but also to anticipate their future needs. Collection, maintenance and dissemination of CI is a gigantic task. In this, the application

of advanced information technology and communication equipment would enable us to operate CISs effectively and efficiently.

THRUST AREAS

CICs may concentrate their services to a few thrust areas in the initial stages. Some of the suggested areas are:

--health (immunization, hospitals, specialists, admission procedures, first aid, grandma's remedies)
--education (courses, colleges, teachers, admission procedures)
--employment (both local and out-station, including self-employment)
--agriculture (new farming methods, seeds, insecticides, fertilisers, etc.)
--village industries (assistance for setting up, financial sources, technical know-how)
--utilisation of local resources (human and material)
--transport (bus, rail, etc.)
--daily necessities (stores supplying provisions and food-grains at reasonable rates)
--sources of finance (banks, government subsidies, etc.)
--redressal of grievances of villagers (contact points, government agencies/departments)
--government welfare schemes (rural development, weaker sections, etc.)
--consumer services
--housing

The provision of CISs should be made a mandatory function of public libraries. Also, this should be included, in explicit terms, in the proposed Indian National Policy on Library and Information System. Steps should be taken for the training of adequate number of staff required for offering CISs. The Central Sectional Committee on Public Libraries of the Indian Library Association may prepare a draft plan of the National Community Information Programme. Pressure should be brought on the Government of India to launch a National Community Information Mission on the lines of other National Missions such as those on literacy, immunisation, drinking water, oil seeds and telecommunications.

There is an urgent and imperative need to provide CISs through public libraries, both in the urban and rural areas of the Third World countries. This would not only revolutionise and vitalise our public libraries but also extend their services to large sections of hitherto unserved population. CICs, if established in public libraries, will enable us to make all sections of people educated, enlightened and informed about various social issues and problems and to equip them for participation in nation-building. They will provide reliable information to people in time so that society as a whole could function in an orderly and systematic manner. In addition, they would enable us to provide information to the people at large, without any discrimination, in accordance with the concept of the Universal Availability of Information (UAI).

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CONTRIBUTED PAPERS SESSION

MANAGING UNIVERSITY LIBRARIES IN SOUTHERN AFRICA IN THE 1990S: PERCEPTION OF CHALLENGES AND SOLUTIONS

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MANAGING UNIVERSITY LIBRARIES IN SOUTHERN AFRICA IN THE 1990S: PERCEPTION OF CHALLENGES AND SOLUTIONS

Abstract
Managing university libraries in the southern African region must be seen in the current social,political and economic environment, with politics and economics playing an increasingly decisive role.Regional and international events will also impact on the service.Challenges will be analysed in this context and an attempt will be made to look at possible solutions for the 1990s.

I. tempt will be made to look at possible solutions for the 1990s.

I. Introductory Comments.

This paper looks at the provision and management of university libraries in southern Africa and the impending crisis of political and economic growth on the development of the service. Forward looking planning should alleviate this crisis and the library service should make contingency plans for survival should the conditions which determine the service deteriorate further.

The de facto one party democracy in the region has failed to achieve significant economic and political progress. Countries are burdened with a fragile economy that makes forward planning a frustrating exercise. The current trend towards a multi-party democracy in the region maybe a hopeful sign. It should provide some safeguard for individual freedom. However the democratic process will be nullified if the freedom to express individual choice is preempted by political manipulation and repression during the transition period. This will destroy the trust in the verdict of the ballot box, thus making a mockery of democracy.

To make multi-party democracy work it should be backed by economic growth. Most countries in the region are not even in the low end of the economic growth curve. At least a minimum growth of 3% [to cater for population growth] is necessary to allow for the provision of minimal social services - the library service being one of them. The current faith in an economic structural growth does not seem warranted in view of its poor performance in countries to the north of us. All indications are that there is an erosion of political freedom and economic life. There is no assurance that structural adjustment will lead to substantial growth and facilitate long term planning in the future.

A single country, Botswana seems to have escaped economic failure due largely to its exceptional mineral wealth. The outcome in Namibia, the most recent of the independent countries will depend on establishing a sustainable industrial base outside the South African economic structure. All the other countries face similar obstacles to growth, aggravated further by drought. Lastly the outcome of the political process in S. Africa will also impact on

the region in terms of trade and security. External factors such as debt payment and fair terms of trade will be added factors in the equation.

This paper will attempt to analyse some of these challenges currently facing academic libraries and explore regional solutions as there seems to be a commonality of problems for the countries in this region.

II. Regional Profile

The countries that make up southern Africa for the purpose of this paper fall within the ambit of Southern African Development Coordinating Conference (SADCC) and include Angola, Botswana, Lesotho, Malawi,Mozambique, Namibia, Swaziland, Tanzania, Zambia and Zimbabwe.

Most Africans in the region still live in rural communities, although urbanization in post-independent Africa is growing at a rapid rate. The majority of city dwellers belong to the first generation migrants. During colonial rule, economic necessity forced many Africans to take up employment in the cities, while maintaining their rural base. The extended family link between the rural and urban folks is still retained with the former being dependent on the latter.

While the region has unevenly distributed mineral resources such as bauxite, chromium, cobalt, copper, diamond, gold and iron ore its economic development has been inhibited by civil strife, cross border attacks, natural disaster and political instability. This has been the trend since independence.

Civil strife and natural disaster have created a massive movement of people placing a heavy burden on countries to provide food, clothing and employment for the displaced persons.

III. Political Stability and Economic Growth

Civil strife and political instability seem to surface during times of economic recession. The two decades following independence (1960 & 1970) witnessed a period of economic growth based on international commodity market trends. In the immediate post war period prices for most primary commodities were high.
The resulting capital flow to primary producers fuelled the independence course.

The trend was reversed in the 1980s as commodity prices rendered quite unpayable debts incurred when prices were high. The region's total debt is virtually equal to its entire annual output. The debt service in 1990 was greater than the total aid received by the region in the previous year. By the Nineties it was being made abundantly clear that reverting to the trend in the Sixties and Seventies was an impossible target. To cope with the falling economy many countries have embarked on an Economic Structural Adjustment Programme [ESAP]. A necessary part of ESAP is a rapid transition to a market economy. The thinking being that, with controls and central planning phased out, market forces will stabilize commodity prices.

In the World Bank and International Monetary Fund (I.M.F) blueprint, the following are high priority policies that have to be adopted:

- local currency has to be devalued (to encourage export and discourage import)
- the civil service has to be trimmed (to effect saving)
- public spending has to be curtailed
- subsidies removed

That the social services funding will be adversely affected in the immediate future is self-evident. The immediate negative effects of ESAP are inescapable. The funding for libraries would be severely reduced, especially since we cannot gauge the value of libraries in monetary terms, like other services and goods whose value is determined by market forces. Deregulation and removal of centralised controls would subject social programmes to economic growth indicators. Political will and planning are then required to develop and sustain these programmes. Even if funding is not reduced the low purchasing power of local currencies will automatically constrain library acquisition in the 1990s.

IV Challenges & Solutions

In the 1990s university libraries will have to find ways and means of survival given the current constraints. When cuts are anticipated social programmes are the first victims.

Some of the major challenges facing management of libraries will be explored in a regional context.

A Funding

To function effectively libraries must be well-resourced. There should be adequate books and journals to support teaching and research as a well-resourced library is central to academic excellence. Unfortunately a large percentage, about 98% of all teaching requirements at this level is published in the developed countries which means that adequate foreign currency must be allocated for this purpose. Even with a forward looking government, to acquire enough foreign currency earnings to support social programmes is critically dependent on the country's export earnings. Given the condition laid down by I.M.F. of devaluing local currencies in real terms this means that earnings from commodity export would be lower. Based on this uncertain fluctuations in commodity pricing, the forex allocation to university libraries would also be erratic. Yet, the need to effectively develop and implement long term acquisition policies for libraries is imperative.

Libraries also depend heavily on donor support. Donors have played a significant role in helping to meet the resource needs of libraries, albeit to a limited extent. For this source too, a level of uncertainty now prevails regarding future support. Indications are that East European countries will be given priority by the donor nations.

A strategy to cope with the funding crisis is to explore establishing an endowment programme with initial funding by donor agencies. Such a programme will also enable libraries to embark on a long-term planning strategy to cope with the changing information needs of the community. An envisaged fund of US$5,000,000 could produce an income of US$225,000 per year. It may be useful to ask potential donor for a specific sum needed to achieve a target of funding units e.g. the fund could be made up of eight (or five) units of $500,000 and ten (or 25) units of $100,000 each.

To ensure substantial local funding lobbying strategies should be carefully planned to put the issue of library support on appropriate agendas of administrative authorities and governments and other interested funding agencies.

The library should also become the beneficiary of research undertakings funded by the university. Any books/journals bought during research must be donated to the library. Similarly the library should become part of any link programme with universities outside the country.

B. Staff Development & Training

Staff are an important resource in a library and play a vital and central role in keeping the service fully operational.Human resources training is the foundation of institution building and managers should be aware of this. Like all service organisations libraries spend heavily on staff. Staff development aimed at achieving full potential should contribute towards motivating staff to give quality and efficient service to users.

In-house training programmes (mainly for para professional and clerical staff) should be developed and enforced based on needs. Appropriate manuals should be developed to facilitate the training programme. Where funds permit a training officer should be employed, alternatively the task could be delegated to one of the professional staff.Continuing assessment of staff to gauge needs for training should be carried out at regular intervals. Clearly detailed forms for assessment should be developed and reviewed regularly. The assessment programme should be evaluated to ascertain whether the objectives are met so that valuable time is not wasted on a project which is not productive.
Professional staff should be encouraged and supported to update and expand their professional knowledge.Many libraries in the region are beset by lack of post graduate level of trained staff. The library school in Botswana has helped to fill this gap to a limited extent.In the next decade we hope that the School will expand and take care of this level of staff so that the exodus of much sought after foreign currency could be curtailed. Funding may be a major obstacle. A level of commitment by the university administration should safeguard against lack of funding. Most universities do have a staff development programme and the library's needs should be incorporated in this or similar programmes.

C. Impediments to Book Mobility in the Region

Efforts should be made to remove all forms of tax on books. In Zimbabwe the Book Development Council has taken up this issue with the respective ministries and the outcome looks positive. Governments should also be lobbied to join the UNESCO Florence Agreement and Protocol to facilitate book acquisition for libraries. The Preferential Trade Agreement (P.T.A.) and the SADDC secretariat could be co-opted to prepare guidelines to facilitate easy book mobility within the region. One such union, the South Africa Customs Unions is working well in facilitating easy movement of books between South Africa, Botswana, Lesotho, Swaziland and Namibia.

D. Inter-Library Loan

It has often been stated that it is easier to acquire books from outside Africa than within Africa, even for books published in Africa.This problem is being effectively addressed by the African Books Collective.(see appendix I). To establish a well-run, workable inter-library loan service in Southern Africa is a demanding challenge and requires more than good managers of academic libraries. Government support is foremost in removing trade barriers and establishing efficient communication.
The African Capacity Building (ACB) organisation whose primary goal is to strengthen institutions should be solicited to maintain resources in academic libraries as a first step in making the inter-library service work. Eventually valuable foreign currency could be saved if we could establish a Regional Lending Centre (a useful goal for the year 2000).

IV Strategies for the 1990S

(a) Planning

For those of us who are managing libraries the next five years will be both challenging and demanding. We have to be resourceful and innovative if we wish to protect the gains we have made since independence. No matter how small your library is and the range and severity of constraints, a long-term development plan with clearly defined objectives and goals is indispensable. The plan should make efficient and effective use of resources already available, especially buildings, materials and staff. The plan should set priorities and should incorporate future needs in terms of staff, space, books and training (both in house and external) and any innovative measures to make the library functional, vibrant and exciting.The plan should give a sense of direction to staff and patrons and ensure continuity should there be a rapid staff turnover. Periodical appraisal of the plan should assess progress and shortfalls.

(b) Publishing Trends

Local publishing plays a vital role in keeping libraries stocked. Therefore it makes economic sense to strengthen and support local publishing. Besides a dynamic library association every country in the region should have a book development council and a flourishing publishing and booksellers association. Local

publishing and indigenous authors should be encouraged, supported and strengthened. Governments must recognise the importance of entrepreneurial activities in the book sector and its role in development.

University press should be made viable by giving it appropriate support. Academic staff should be given incentives and an attractive work environment to make it feasible to produce a range of text books. [Perhaps promotion based on text book production should not be ruled out.]

Books published locally under licence should make book acquisition in libraries cost-effective. Since its not a viable proposition to do so far one or two universities in each country it would become workable if it became a regional venture. Core textbooks for each discipline could then be published and the trend monitored to determine future publication needs.

A feasibility study on establishing a SADCC university press was carried out in 1990/91 with the following objectives:

(i) To serve as an outlet for research in the region

(ii) To publish cheap and relevant text books for the region.

(iii) To make books and journals more readily available and at affordable prices to the academic community and the general public.

(iv) To promote self-reliance and self-sufficiency in the book industry in the region.

This is a forwarding looking venture fulfilling the needs of the region and in developing a university book culture appropriate to the region.

(c) International Donors

Donors have played a major role in addressing book famine in Africa and include:

(i) Ranfurly Library Service
(ii) Canadian Organisation for Development through Education (CODE)
(iii) Africa Books Collection CABC
(iv) British Council
(v) Intra-African Book support Scheme (IABSS)

(see appendix I for information on donors).

(d) Regional Co-operation

Regional co-operation should be developed and sustained through:

- sharing of resources [the University of Zimbabwe is currently engaged in developing a Union List of Periodicals for the region).

- exchange of local publications (a UNESCO sponsored workshop on exchange of locally published materials was held in Harare in Nov.1991 and should contrbute substantially towards resource sharing)

- sharing of expertise
- regional training
- joint ventures in publishing and related professional work.

To develop and sustain libraries and the book industry in the SADCC countries regional thinking and co-operation should be reinforced at all levels even if the political climate is not conducive. Non-Governmental Organisations (NGOs) should be harnessed as a practical measure. The artificial boundaries are a colonial barrier to regional co-operation and should be addressed at appropriate fora.

(e) Use of Appropriate Technology

Academic libraries in southern Africa are being affected by diminishing information resources. Economic austerity and poor exchange rate have forced libraries to cancel subscriptions to journals, indexes, abstracts, thus denying researchers access to current, valuable information.

One way of coping with the need to access current information is to use appropriate, cost-effective technology.

(i) CD-ROM

The CD-ROM technology has proven to be an effective way of keeping current on information. It is user-friendly and does not require extensive training.There are many databases of information available on CD ROM. CD.ROM has in recent years achieved widespread recognition in developing countries as a highly cost-effective and viable medium for accessing international databases. In Zimbabwe the Medical Library is using the MEDLINE database. The heavy demand for this service has encouraged the installation of a second work station for users. The Medical Library may soon be undertaking searches for the region. Similar facility has just been installed in the Veterinary Library using the AGRICOLA database.

Through sharing expertise on CD-ROM regarding training, installation as well as sharing information available on the various databases the region will have a cost-effective way of acquiring current information for researchers who do not have or cannot afford online access to information.

(ii) Satellite Network

Another technology that is being slowly established in Africa to access information is the use of satellite. Presently HealthNet, a global information health bank is available via a satellite to universities and hospitals in Uganda, Tanzania, Zambia and Zimbabwe (see Appedix III).

HealthNet is a non-profit telecommunication service specifically created to facilitate communication amongst health professionals and to link them with their colleagues internationally. This satellite-based network allows any member to send electronic mail message daily to any other participating institution. HealthNet also provides access to medical literature search service such as MEDLINE, abstract and bibliographic references, and document delivery service for a limited selection of full text current medical articles. Participating institutions will be able to send or receive about 500 pages of text per month.It does not depend on telephones and permits electronic mail delivery in the most isolated or difficult of circumstances. Based on this principle a network can be constituted anywhere, regardless of the quality or quantity of telephone services in the region. SatelLife is the name used for this health service network. Listed below is further information on the service extracted from a workshop handout.

What will HealthNet cost?

The user community in developing countries will not be charged for the basic monthly service of HealthNet-- up to 500 pages per institution per month. As there will probably be a need in the future for institutions to assume a portion of the costs, "shadow billing" will be instituted from the beginning. Shadow billing allows the user to see what the actual costs are while not being charged.

Additional services - computer searches, abstract and bibliographic references, and delivery of full text articles -- will be subsidized or charged at cost. In part, the charges will depend on the willingness of publisher's to waive copyright fees for this limited distribution network as well as the willingness of institutions in developed countries to donate or partially underwrite the provision of these services. For example, SatelLife has reached an agreement with the Massachusetts Medical Society to offer the weekly table of contents from The New England Journal of Medicine; from this (or from a five-year backlog), users can order a full text article free of charge.

Who can Participate?

HealthNet is intended for use by national medical libraries, Ministries of Health, medical schools, non-governmental medical agencies, and other health care related institutions.
The participating institution must agree to: 1) assure staffing of the service, as well as broad access to as many users as is practical in the local medical community; 2) guarantee the security of the ground station; 3) provide for its maintenance; 4) provide training for other host institutions as the network expands.In addition, the participating institution must obtain the necessary licenses and permits from the appropriate authority, such as the Ministry of Communications or similar authority respnosible for communication.

HealthNet will assist institutions in obtaining either funding for complete ground stations or necessary equipment such as the radio interface, if the institution can provide a computer. HealthNet or its users will also provide installation assistance and training to new members.
HealthNet will eventually have "gateways" to other electronic mail networks such as BITNET, EARN, JANET, and ACADEMNET. This feature will allow HealthNet users in the developing world to send messages to institutions on other networks.

Who Administers HEALTHNET?

HEALTHNET is administered by SatelLife, a not-for profit organization with offices in the United States and Soviet Union. SatelLife is governed by an international board of directors. It was created by the institution that was awarded the 1985 Nobel peace prize-the International Physician for the Prevention of Nuclear War. It reflects their belief that the greatest threat to our common humanity is the gap that exists between health conditions in the developing world and those in industrialized countries.(see Appendix III for countries in the region who are beneficiaries).

(iii) E-mail

Use of E-mail could be made effective by university libraries joining global academic networks. The quantity and type of data communicated will depend on a robust communication system providing direct access to the international data system.

The University of Zimbabwe is currently accessing INTERNET (the global universities' network) to which most academic and research establishments are connected. A dial-up link via telephone lines has been established from the UZ Computer Centre to Rhodes University (South Africa), where mail and newsfeeds from INTERNET are exchanged each night. The subscription to UNINET is currently Z$15,000 p.a. There is no message charge, and UNINET is currently bearing all the telephone charges. A direct link from UNINET to INTERNET has been established.
To INTERNET via MANGO and FIDONET

The Harare based MANGO organisation has registered three members of the university community as users of its facilities. Electronic mail is sent by telephone lines to the Harare computer, whence it is packeted to FIDONET, from which a gateway node leads to INTERNET. The subscription to Mango is Z$600 p.a. and messages are charged at 50c per kilobyte. The Mango computer in Harare has experienced a considerable amount of down time, but international e-mail is being sent and received regularly through the system (see Appendix II).

The ESANET project

Five universities in East and Southern Africa are engaged in a project to investigate data communications for regional academics. One medium of communication is the public telephone service, while

a second is the use of packet radio through low orbit satellites. This latter method uses the VITASAT satellite, intended for the linking of health workers in developing countries. For this reason a satellite ground station was established at the School of Medicine. The whole project is still in the experimental stage, and does not provide a facility for the whole University of Zimbabwe community.

The AFRINET project

This network project offers conferencing and mail facilities by using VAX computers.

V Demographic Trends

Post independence trend witnessed a rapid expansion of education at all levels, placing a severe demand on library resources. Universities had to recruit a high level workforce to cope with the developing needs of countries. The first generation university students drawn mainly from peasant families have placed a heavy demand on library facilities to compensate for their restricted educational and home background.

Given the role of the library in the educational process, there is and will be a severe strain on its limited and dwindling resources in the 1990'. There may be a constant challenge to governments to make provision for university education in the national planning process and there may be a constant challenge to librarians to make sure that governments provide for this need.

VI Coping with Campus Upheaval

Students have known to react to prevalent political climate by staging boycotts and riots. The recent student demonstration in Thailand where the military ruler was ousted illustrates this point. Similar occurrences have taken place elsewhere in developing countries.Libraries will have to cope with the turbulent mood of student demonstrations when libraries are threatened with closure. Libraries have also to prepare themselves for crisis management when unrealistic demands are made on resources and services.

VII Role of Librarians in the 1990s: the final responsibility

By the year 2000 the role of librarians in the region may have to take on a more dynamic perspective to survive. A regional approach focused on support and sharing of resources, ideas and expertise may be an optional strategy.

Country -specific strategies will also have to be planned. To keep libraries open, well-resourced and functioning requires careful monitoring of the political and economic development in the country. Awareness of the level of development is fundamental to planning. Whether development is analysed as basic needs approach (food, shelter, health and education) or in more general terms the implication for library development should be understood. It is

indeed difficult to envisage a survival strategy without due consideration being given to the political and economic processes nationally and in the region.

Lobbying strategies should be worked out with the help of the media and the general public to guarantee on going support for libraries. Library provision should be on the agenda of authorities responsible for such services.

Managing libraries is a continuous process based on clearly defined objective and the ability to make the right decision in the pursuit of excellence. The future of academic libraries in the region will depend on the librarians' perception of the shifting objectives and their ability to analyse and implement these objectives in a challenging environment.

Appendix I

(a) Ranfurly Library Service

The Ranfurly Library Service (RLS) was founded in 1954 and is a non-political, independent, voluntary organisation with a small paid staff supported by many voluntary helpers. The service operates by accquiring funds for book purchase of surplus stock in the UK.

Canadian Organisation for Development Through Education (CODE)

CODE is a non-governmental organisation which supports education and literacy work in the Third World. It has three regular programme areas:

(i) a Book Programme which supplies books from North American sources to educational organisations and libraries;

(ii) a Project Programme which primarily provides funding for literacy programmes and the local production of learning materials; and

iii) a Paper Suppport Programme which addresses the need for paper to print learning material for literacy and educational programmes.

Books are donated to CODE mainly by North American Publishers, Universities and school boards and include text books for primary and secondary schools. The books are shipped in large numbers to local organisations or committees in the country concerned, who then assume responsibility for customs clearance, storage and local distribution. Tanzania is benefitting from such a scheme and so is Zimbabwe, on a smaller scale.

Africa Books Collective (ABC)

ABC was launched in 1990 to:

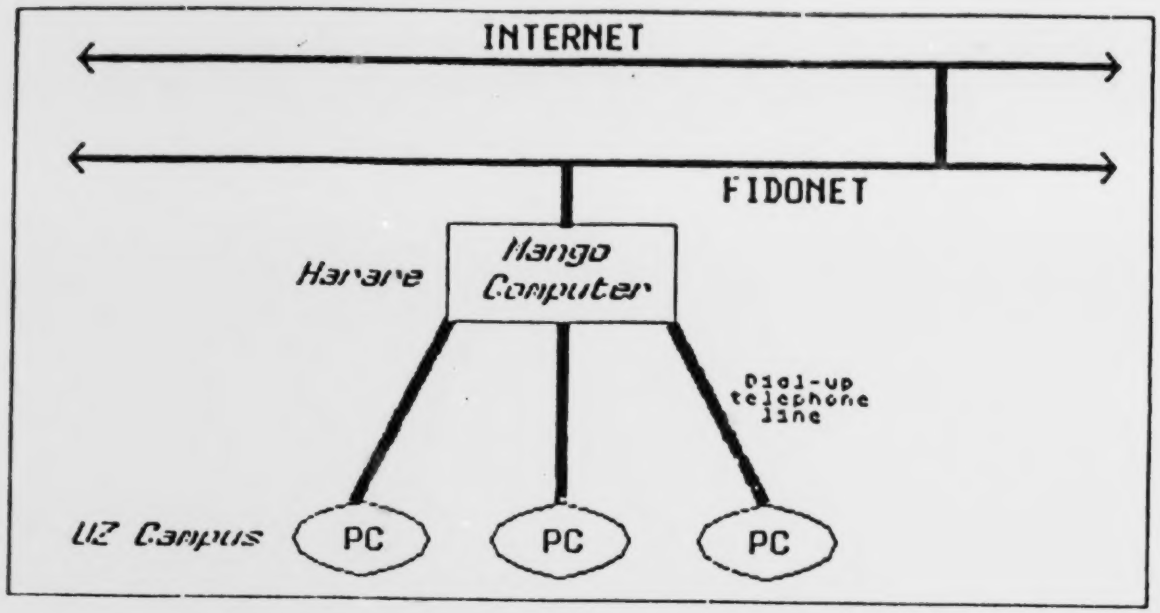
(i) to help overcome book famine in Africa;

(ii) to promote an intra-African flow of books;

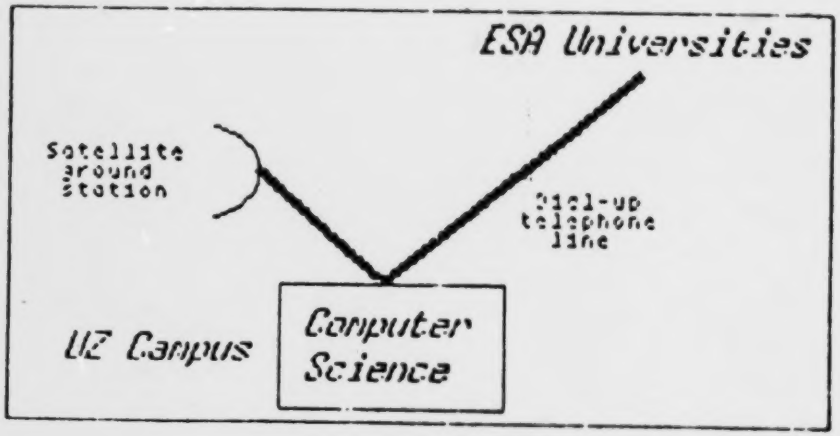
iii) the funding of sales of books to Africa to help generate means to support African publishers and hard currency sales earnings for African publishers.

ABC is supported by donor organisations and currently carries stocks of over 500 new and recently published titles, and provides centralised billing and shipping from one service point in a U.K. based warehouse.

Recently, supported by donor agencies it has purchased 400 backlist titles published between 1987-1990 by member publishers of Africa Books Collective. These will be sent to the recipient libraries by Ranfurly Library Service and with further donor support each library will receive approximately 120 new titles.



To INTERNET via MANGO and FIDONET



The ESANET Project

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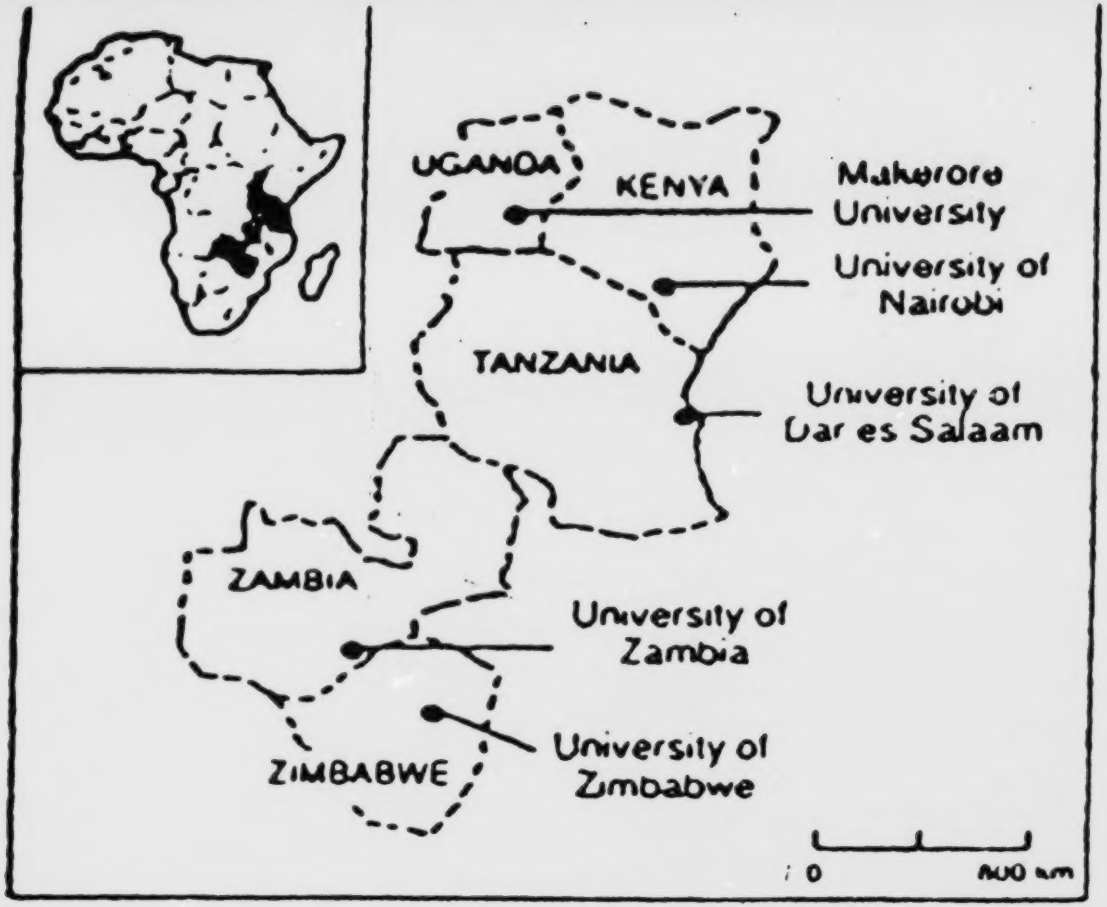

Countries in the region serviced by SatelLife

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IFLA GENERAL CONFERENCE NEW DELHI 1992

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CONTRIBUTED PAPERS SESSION

Thailand's Experiances in Strengthening Information Infrasturcture : an Example of an Attempt to Develop the Asia and Oceania Information Infrastencture.

Kosol Choochuay

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Thailand's Experiences in Strengthening Information Infrasturcture : an Example of an Attempt to Develop the Asia and Oceania Information Infrastencture.

Kosol Choochuay

Overview

The Thai 7th National Social and Economic Development Plan (1992 - 1996) concerning non - formal education (NFE) identifies the folowing groups as targets in pursuing its policy to be achieved within 2000.

1. The socially and economically deprived people who comprise the illiterate, school drop - outs, primany school leavers who discontinue their education, rural people, the elderly, the homeless, deserted children who are not attending in - school education, women, the disabled and particular groups of people who need special attention.

2. The people who need to enter into a fast, socio - ceonomic developed society, particularly the people in the urban, slums and special developed areas.

The common activities organized for these people are : setting up community leanning centres, conversation groups, training of community leaders, setting up village reading centres,

cloth weaving, functional literacy classes, setting up nurseries, vocational interest groups, continuing education classes and distance continuing education.

More notable among the programs organized are setting up of community learning centres, village reading centres and conversation groups as they are the most informal educational activities and less confined to the conventional style of learning. They are also similar to the activities organized in a libary.

In addition, community learning centres and village reading centres have been mentioned as part of the national learning network, which is yet to be set up. The network is an attempt to link existing isolated informal learning facilities together. They are provincial public libraries, district public libraries, village reading centrs, pubic science and technology centres and community secondary education project.

An aim in setting up such a network is to urge the provincial public libray to act as the core of the network - supporting, co - ordinating and initiating activities which are community - oriented. However, staff and facilities shortages, low morale and lack of training among the staff have hampered the idea. To improve the situation, it is deemed essential to expand the number of public libraries, recruit more capable staff train existing staff and review rules and regulations to facilitate the library"s new roles.

2 (20)

However, because of personnel increase is limited to only 2 % and lack of proper perception among the administrators, things can proceed very slowly. The Depoutment has to rely on the Budger Burcan too personnel increase and materials provision. Nevertheless, a series of workshops organized to improve the staff development and other aspects of the library have been eye - opening experiences and rewarding to many.

Current Situations

Thailand currently has 779 districts. It is a rule that each district must have as least one public library. However, though first libraries were set up in 1916, the country now has only 498 district public libraries. If the number of provincial public libraries is included, the total public libraries in Thailand is 701 with the 884 library pwrsonnel.

Among many problems to be tackled, the Non-Formal education Department of Thailand has decided to take up the task of personnel development which includes the planning, development of curiculum and media, training of the media and activity organizers and the training of the libary staff.

Pattaya' Workshop.

With IFLA's assistance, Thailand was able to organize a regional workshop on staff development in Pattaya, during January

12 - 17, 1992. The workshop had four distingnished guests from India (Dr.Saroj hose), Indonesia (Mr.Hernandono), Malaysia (ms.Adeline Leong Purg Ken) and Sihgapore (Ms.Kiang - Koh Lai - lin, but has the Thai NFE administrators and practitioners overwhelmingly attended. The workshop saw the same goals of the Thai and overseas experts for the community (or they named it "New Vision") Illibraries. However, they are practically different on approaches. Whil India gears to serve the mass by using all possible means - including key - punch computerized and sattelite services, Singapore, Malaysia and Indonesia adopt modern planning, well - rounded activities and easy access ones, the Thais seem to think more of local wisdom and resources. This seems to be against themselves in nature since information comes in instant manners and should keep up with time. However, our reason is obvious - we want to expand the learning network very fast but we lack financial resources.

But common themes are that the library is more important to any society which wants to progress. And they should try their best to reach all types of customers.

In view of invaluable inputs provided by the overseas experts, IFLA Regional Manager and 2 UNESCO experts and Thai participants, the workshop then split into 3 groups to consider the areas of management; technical support/research and development; and programs and services. Each group was to recommend their resolutions and personnel developments in each respect.

The following are excerpts from Pattaya workshop.

GROUP REPORTS

BASIC PRINCIPLE OF COMMUNITY - BASED LIBRARY

1. Dynamic learning center
2. Responds to the community's needs
3. Promotes people's participation and ownership
4. Acts as a linkage in information network
5. Acts as a recreational & cultural centre.

MEASURES

1. Legislations, De - regulations
2. Input management
3. Training & Follow - up systems.
4. Resource mobilization

AREAS TO BE CONSIDERED

1. Mangement
2. Technical Support/research & development
3. Programs and services.

MANAGEMENT : how to plan and organize

(1) Qualification/specification

(2) Recruitment

(3) Training for technical support

(4) Sustaining & raising morale

(5) Provision of rules & regulations

(6) Staffing : librarians, technicians and non - professionals

(7) Incentives/recognition/salary/promotion

(8) National Policy/Plan incorporation/strong policy commitment from policy maker structure

(9) Autonomy : budgeting/administration

(10) Decentralization to the local responsibility.

TECHNICAL - SUPPORT SYSTEM

- Learning network
- Association forming
- Co - operations
- Inter - library loans
- Clearinghouse network
- Rotation network
- Programm/reinforcement
- Applying appropriate technology

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6. programmes and services for establishing and mobilizing learning resources.
7. programmes and services in preserving and promoting local wisdom, comunity cultural heritage.
8. programmes and services for exchanging learning materials with other learning network.
9. programmes and services for individual/group's recreational fullfilment.
10. services
    - friendly services
    - diversified services
    - relevant/community - oriented
    - forceful/active
    - reaching out to users
    - integrated services
    - milti - media

Training Model for Management for the Public Library Personnel

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1. Target group: Librarian

2. Objectives:
   1. To make the librarians realize their future roles as information providers, and as n referal to information sources.
   2. To make the public aware of the new roles of the library as an information centre.
   3. To upgrade the librarians' skills in new information technology.
   4. To train the librarians in collecting community oriented information.

3. Contents:
   1. Practical skills in information seaexhwa.
   2. The use of reference tools (eg.indexes, abstracts bibliography etc.)
   3. The application of new information technology (eg. computers, CD Rom, AV etc.)
   4. Information of library new role as an information centre.

5. Collection of community - based local wisdom and dissimination of information (Bibliography)

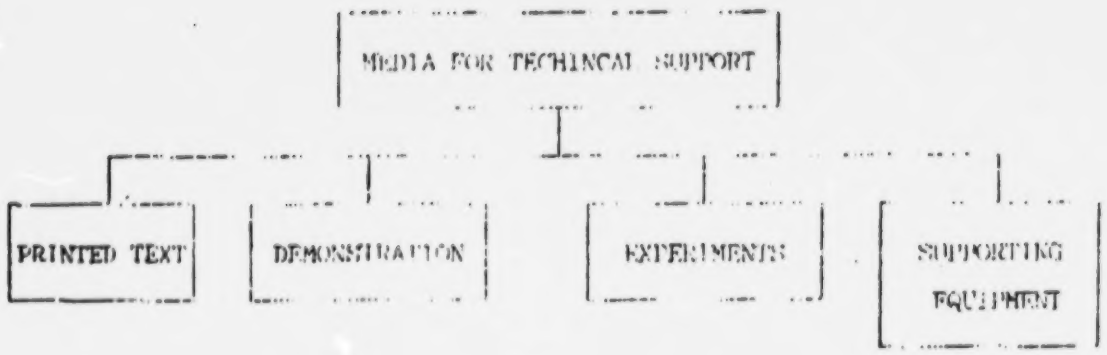
4. Training agency : National Library in Co - operation with Dept. of NEE University Libraries, Libraries School and Thailand Lib. Association.

5. Duration : 2 weeks.

ORGANIZATION CHART FOR TECHNICAL SUPPORT & TRAINING

Tasks	Technical Support	Special Training for Library staff and Selective community
1. Acquisition 1.1 Information about latest publication 1.2 Access to union catalogue	1. Set up a clearing House for continuous feeding of information (prints/ floppies)	1. Use of computer and modern IT (Information Technology)
2. Information Assimilation 2.1 Identification of 2.1.1 Printed Materials 2.1.2 Demonstration 2.1.3 Experiment 2.1.4 Supporting Equipment 2.2 Acquisition of equipment 2.2.1 Software 2.2.2 Hardware	1. Design fabrication and distsribution by National Network consisting of a) CET,CEM,NFED in BKK b) 5 RNFEC 2. Design, fabrication & distribution by local network consisting of: a) NFED b) Local institutions c) Community 3. National Network shall be responsible for standization and selection of equipment	1. Operation and preventive maintainance of kits and equipment 2. Development programs through community

Tasks	Technical Support	Special training for Library staff and Selective comjunity
2.3 Utilization 2.3.1 Operation of equipment 2.3.2 Maintainance 2.3.3 Dissemination ov information	4. Local network to give support for a) Annual maintainance contract with suppliers of hi-tech equipment b) Maintaince of less sophisticated equipment by local network itself c) Neccessary training on library staff on maintainance of all equipment	
3.Technical services 3.1 Catalog (card/ computer) 3.2 Abstract 3.32 Manual	1) Availability in provision process 2) Assignment to local institutions 3) Networking 4) Use of modern information technology	1.Use of computer and modern information technology



-books
-periodicals
-microfilms
- microfiche

Access to
- Reading
- Writing
- Information
- Assimilation

-mobile service
-audiotapes
-films
-videotapes
-computer diskettes
-compact discs

-circulating exhibition
-garden-for local flora & medicinal plants

a) Kits for
-logic
-art
-culture
-history
-nature

-physical Sc. -technology

b) Testingkits for
-water
-soil
-public health
-nutrition
-entomology
-fertiliser

c) Open air exhibits
Health park

-microfilm render
-film projector
-cassette player
-vcp
-cd player
-pc (personal computer)

-equipment for specific activities

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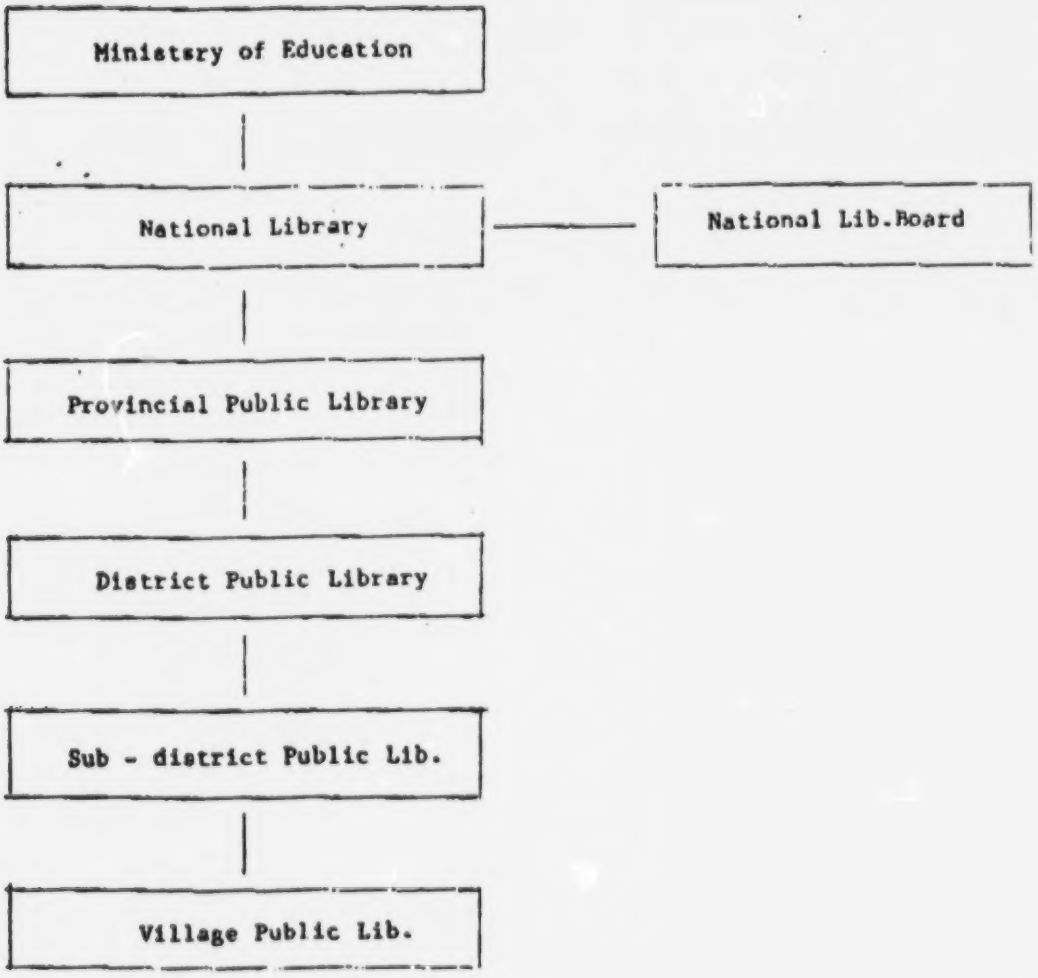
tele link or optical fiber snt. link

PROPOSED RE - ORGANIZATION CHART

OF

THE INFORMATION NETWORK



Subsequment Development

After the Pattay's workshop, the project split into 2 lines - proceeding simultaneously. (1) One stream is the direct subsequence of the Pattaya workshop. The second workshop is to translate the workshop's training guideline into training module and curriculum. It was organized in Nakornpathom and Cholburi, during May 8 - 15, 1992. The detailed curriculum training patterns, procedures, activities and texts of media to be used in the library staff development were developed in the workshop. Then, they were polished by the NFE supervisory unit. The next stage was to produce the prototype media in Nakornpathom again during June 8 - 12, 1992. Allowing sometime for factory production then the first full - fledged training will be organized in August. (2) The other stream, though, was part implementation of ideas gained in the Pattaya workshop.

As some of the Sirindhorn Princess Libraries were to be open in February and their staff were newly recruited or transferred from elsewhere, a 4 - day training was given to them at the centre for Educational Musium, during February 8 - 11, 1992. The workshop was aimed primarily for library activity and media developers. There were altogether 335 trainees. Among them, there were 29 participants from NFE central office; 282 participants from regional and provincial NFE centres; and 61 library staff of Sirindhorn Princess libraries.

The training contents were :

(1) Expected roles of the public libraries.

(2) How to develop the public library to become a public learning centre : a conclusion from the Pattaya workshop.

(3) How to organize learning centre activities: reading promotion activities; activities for children and family;

community development activities; and how to improve the library's surroundings.

(4) Concepts to be considered in order to transfer the public library to become a public learning center.

(5) How to conduct a survey to get information on the community to be used in organizing appropriate library activities.

(6) How to translate information in identifying needs and problems.

(7) Practical works on 8 areas : basic activities of the library; information technology for the library; children playground, health park and environment park; environment activities for the youths; demonstration media : exhibition and demonstrations to promote arts, culture and enviroment; puzzle corner and play kits in science and mathematics; and toys and games in the library.

The training of this nature was organized again at the same venue, during June 15 - 21, 1992. The aim was not only to pass on what can be disseminated at the time the staff of Sirinthorn Princess libraries can start and handle their work effectively; the regional and provincial NFE centres can employ the ideas and transfer their experiences in developing and supervising the libraries in their areas; and the staff from Bangkok central office can be occasionally called for help.

As for the IFLA's sponsored project, the prototype will be translated into English so it can be applied - be it within or outside the region.

The training, however, is initially set for 3 occasions - each one for 51 librarians. More traning can be subsequently added as many as needed by anyone who has attended training organized at the Centre for Educational Museum or been involved with the training package development process, who normally are people from Bangkok central office and regional NFE centres in fairly the same number and from some provicial centres.

Lessons learned

1. Learning network linkage. Despite long existence and fair large numbers of village reading centres (35, 082), community learning centres (236), public libraries of all sizes (701) and public science and technology centres (5), each unit still exists and functions in its isolation. Little attempt has been made by each NFE centre's administrators to make this goal realize. The librarians on the other hand are too busy with their routine work to ponder the matter.

2. The staff shortage of the library is indeed critical. It virtually affects all moves or attempts to improve the library. If one staff member is called to a training, the library may have to be closed until s/he returns. The librarians themselves are stucked with day-to-day matters so much that they cannot think of other way to improve themselves.

3. The workshop among the librarians and NFE academics in Pattaya actually lit some hope and optimism among the librarians and NFE academics in the library work provided they have some more staff, some training and some modern-equipment in handling there jobs.

4. It is essential for the Non-Formal Education Department to devote its attention and resources to basic identified problems - when compared to the neighbours' situations. That is, solutions to staff problems, their status and the reorganization have to be adopted as soon as possible. Correct prioritization for these and other problems is crucially needed to alter overall situations.

5. It is noted that the organizations representing the librarians' grievences - The Association of Libraries of Thailand, for example - should play more active roles in alleviate the librarians' status and well - being.

6. The Non - formal Education Department of Thailand should do more, apart from giving more budgets for books, to reflect importance of the "information" sector in which other circles increasingly also gain more importance. A result is the library is becoming the most visible non-formal education facility and informal education which is most known to the public.

7. Judging from the importance given by the Non-Formal Education Department and progress achieved by India, Indonesia, Malaysia and Singapore, Thailand has to regularly improve the library work in staff quantity as well as quality. And it should heed the advices given by the overseas experts seriously. Otherwise, it will be lagged far behind.

8. IFLA sopnsored project is certainly palying a great role to bring about favourable changes to the library in particular and the information services rendered by the Department in general.

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CONTRIBUTED PAPERS SESSION

Information Policies and Government Guidance in Nigeria: What Hope for Rural Communities?

By

Lukman Ibraheem Diso
(Dept of Library Science
Bayero University
P.M.B. 3011, Kano - Nigeria

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Archival C

Information Policies and Government Guidance in Nigeria: What Hope for Rural Communities?

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Lukman Ibraheem Diso
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Introduction

It is generally argued that the current developmental crisis in Nigeria is not as a result of inadequate resources but rather a product of "mismanagement". No doubt with a population of about 88.5 million (the most populated in Africa)[1] and vast agricultural and mineral resources, Nigeria occupies a strategic position, both politically and economically, in the African continent. Located on the West Coast of Africa, the country has a land area of about 924,000 KM^2. Nigeria is a member of the Organisation of Petroleum Exporting Countries (OPEC) and one of the leading three of the ten oil producers and exporters from the continent.

Besides oil Nigeria has substantial deposits of other mineral resources including gas, uranium, coal, tin, iron ore, columbite, lead, zinc and limestone[2]. The wealth of agricultural resources is produced from a vast area of arable land on which almost all tropical crops could be grown because of the varied climatic conditions in the country[3].

Similarly, with about 30 universities, over 50 Colleges of Education and Polytechnics, and about 26 research institutes[4] and several libraries of various types, the learning and research environment seems fairly favourable. But, what is the stark reality?

According to the World Development Report (1990)[5] of the World Bank, Nigeria has been categorised among the poorest nations of the world. Reliable statistics are extremely hard to come by, but estimates have already shown that 75-80 percent[6] of Nigeria's population lives in the rural areas. Rural areas in Nigeria are generally characterised by poor living conditions - absolute poverty and absence of almost all amenities of life. Literacy rate in Nigeria is about 35-40 percent[7], much lower among women and rural communities. Reports of scarcity of learning facilities, including basic textbooks and journals, in schools and libraries, including academic libraries, show a critical situation.

These glaring contradictions have given the concept of "mismanagement" a special significance, which connotes not only political and economic failures of the state, but also a failure in intellectual terms. The concept is therefore often used to refer both to leadership's extravagance and misappropriation of public resources, and to ill-conceived and ill-formulated policies, inefficiency and misutilization of the human resources that abound in the country. The major victims of this development have historically been the rural communities. The purpose of this paper is therefore to examine these problems from perspective of information provision with particular reference to rural communities.

One of the basic problems of development in Nigeria which has not been emphasized, is the state's misconception, or perhaps deliberate distortion, of the concept of information service, and the inevitable consequences of this on

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development planning. The State defines information service in terms of mere enlightenment activities and announcements about what the state does and plans to do for the people and the justification for that. Even serious information, like disseminating agricultural research results, is often subtly reduced to persuasive propaganda to make people appreciate and accept the state's "benevolence" and "benignity" for providing farming inputs or new methods of cultivation. Institutions and agencies, such as Ministries of information, information centres, and mass communication media, have been set up to serve propaganda purposes. However, contradictions between "sweet utterances" and reality (i.e., what the state says and what actually obtains) may affect people's confidence to accept any development programme without suspicion. The implications of this are more serious for information than any other development programmes.

The main thrust here is that information must, as a matter of policy, be seen as a basic resource for development if durable structures are to be provided for effective access and utilization, which entail information capturing, coordination, processing, and dissemination. According to Agbola, "development planning involves the planning of societal goals and objectives and the mobilization of natural, human and financial resources needed for their achievement.....a process for reaching a rational decision and a means of achieving goals by optimal means"[8].

To achieve this objective, development planners, no doubt, require information - statistical, social, legal, political, economic, cultural, and so on - upon which their planning is to be based. On the other hand, the citizens to whom this planning is directed must be informed in order to

be constructively involved in both its formulation and implementation to facilitate the process of sustainable development. For information to play an effective role in development, its dissemination has to be organized and governed by coherent and comprehensive policies.

The absence of such policies in Nigeria is reflective of the state's perception of the role of information in development. The consequence of this is a chaotic information environment, characterized by duplication of mostly inappropriate services, poor collection development, lack of awareness of new information tools and technologies, poor professional organizations, poor training facilities, and further deprivation of rural communities. This situation has become a vicious circle.

Agbola states the problems thus: "The efficacy of the rolling plan (Nigeria's latest development plan) is a function of the quality of data, among other factors....a rolling plan because of its currency demands copious up-to-date statistics. In the case of Nigeria, the data are quite available but not collated in the form that lends itself to the ready needs of a rolling plan. This then constitutes another shortcoming of the rolling plan"[9]. However, while development planners are apparently aware of this basic problem, there seems to be little they can do since their operations are entirely governed by government's directives and guidelines, which no doubt reflect government's notion of information services.

Information Services in Nigeria's Development Plans

Since independence in 1960, Nigeria's approach to development has been through policy formulation with development programmes, objectives, strategies, and priorities set

out in a National Development Plan, and recently a National Rolling Plan. "The basic objective of planning in Nigeria", as stated in the 2nd National Development Plan (1970-74:37), "is not merely to accelerate the rate of economic growth and the rate at which the level of the population can be raised; it is also to give her an increasing measure of control over her own destiny"[10].

The development plan is a fixed medium term plan covering a specific time horizon usually 4 or 5 years after which its life-span terminates and a "successor plan" with new programmes, objectives, and priorities drawn up. The first National Development Plan covered a period 1962-68; the Second 1970-75; the Third 1975-80; and the Fourth 1981-85. The break between the First and Second Plans (1968-70) was as a result of the Nigerian Civil War which broke out in 1967 and ended in 1970.

As a response to the present-day reality and dynamics of the new economic environment, it was necessary, according to the Federal Government, to dis-continue the 5-year static development planning model and to introduce a national rolling planning model. The 3-year National Rolling Plans are issued in a series which will constitute successive phases of a 20-year perspective plan. The First National Rolling Plan was adopted in 1990-92 and rolled over in 1991-93 and again in 1992-94 and so on.

The development objectives, programmes, and priorities listed in these plans represent government's concept of development and her perception of how development problems can be tackled. The plans therefore serve as a framework for any national development policies to be formulated; the scope of such policies and financial requirements for their execution have to be reflected in these plans. The

concern in this section is to discuss the place of information services as reflected in these plans.

Two categories of information services can be distinguished in the plans. The first category, identified in the plans as information services (public information), include all information that emanates from the government in the form of enlightenment programmes or propaganda to sell government's ideas, or any information disseminated by government's media, both print and electronic. The second includes information services (regarded in this discussion as development information) provided by such agencies as libraries, documentation and information centres, archives, and agricultural and health extension services. This distinction is important because of the emphasis the plan places on the first category, both in terms of financial allocation, programmes and projects, and policy statements; and because of the implications of this for the development of the second category. The trend was set right from the beginning.

In the First Plan the information sector consists only of broadcasting (radio and television) and the government press, and the First Progress Report (1964) on the Plan indicates that, "over 50 percent of the total capital expenditure has been incurred in the first year". Even media libraries do not seem to be recognized as an important component of this sector and therefore no mention has been made of them, nor has there been any provisions for an organized information system anywhere in the plan, beside provisions for the establishment of a National Archives and a Teachers' Reference library.

Another important feature of the Plan is the high emphasis placed on agricultural and agriculture-related researches, agriculture being identified as a priority area in recognition of its strategic place in rural development. However, the Plan is silent about the mechanism through which information can be provided to the researchers and how research results can be organized and disseminated to farmers.

In the Second Plan, "the highest order of national priorities is accorded to agriculture, industry, transportation, and manpower development"[11]. The aim is to promote "balanced development between one part of the country and another, especially between the urban and rural areas"[12].

While the vital role of information in achieving this objective has been acknowledged in the plan, policies remain inarticulate. For instance, the Plan addresses the government's basic misconception of information services, stating that "in the past the information services were regarded mainly as media of acquainting the people with the activities and aspirationsof government and its functionaries..." It has also been recognized that "the transmission of research information to farmers is a vital factor in the rapid development of the rural economy"[13]. The Plan further emphasises the need to pay "more intensive and continuous attention" to extension services,and to restructure the training of extension workers to meet the real needs of the rural communities. Yet, the Plan's Policy issues do not show sufficient infrastructural provision to support any sustainable improvement.

The policy issues address the following areas:

- reorganization of the information system to develop coordination between federal and state information ministries;

- improvement of broadcasting system;
- developing facilities for the dissemination of printed information on government activities;
- establishment of an agency to coordinate the collection and circulation of factual news about Nigeria within and outside the country; and
- development and maintenance of library services to assist the spread of knowledge and information among people in the various communities.

It can be readily observed that with the exception of the policy issue on broadcasting systems, all other issues are functions that can be performed by a single agency, perhaps the library, in whose range of functions they fall. The first problem therefore is that any attempt to implement them separately as they are through different agencies, is likely to result in duplication and chaos, which are clearly avoidable. Secondly, while library functions have been clearly defined, only about 4.5 per cent of the total capital expenditure has been allocated for the permanent building of the National Library. Nothing has been said about how these functions can be performed, or how library services generally can be developed in order to achieve the stated objective.

The problems noted in the Third Plan Confirm the confusion that characterises policies in the previous plans. The problems include the following:

- the failure to start the construction of the National Library headquarters building during the second Plan period while its 2 branches were still in rented accommodation;

- existing information services are not adequately geared to Nigeria's new role in international affairs, nor to national aspirations and unity;
- Shortage of facilities, equipment and personnel to cope with the task;
- Library services did not catch up with the demand for them throughout the country; and
- lopsided distribution of library services, with rural areas neglected.

The plan concludes that "libraries have not been able to perform effectively their role as centres of learning and public enlightenment"[14]. Despite these apparently well noted shortcomings of its "predecessor Plans", the Third Plan states that the major policy measures in the information sector "is to make information services more efficient in the task of promoting the nation's basic of unity and the projection of the nation's image abroad". It thus states the following objectives:

- development of radio and TV broadcasting;
- expansion of library services throughout the country and to remote areas;
- improvement of facilities for printed information and maximum support to government newspapers in propagating government activities and disseminating general news to the public; and
- promotion of arts and culture.

However, the Second Progress Report (1976/77) on the Third Plan lists the following as the shortcomings arising from the implementation of the plan:

- inadequate transmission of research information in both quality and quantity; and
- slow progress of both Federal and State Library Projects.

In the Fourth Plan, library services are relocated from the information to the education sector. In this plan, there is a noticeable decline in the emphasis on library and information services, in both policy issues and resource allocation. Apart from a one-sentence statement that, "library development forms an important component of the educational services", the plan is silent about library and information services development.

The contrasting feature of the National Rolling Plan is the relatively high emphasis placed on the development and diversification of library and information services. It is interesting to note that in the First Rolling Plan (1990-92) and the roll over Plans (1991-93) the importance of library and information services, in almost all sectors of development, has been invariably recognized. For instance, under the agricultural subsector a Central Agricultural Reference Library, to serve as agricultural Data Bank; and Agricultural Statistics Data Bank and Information Dissemination have been listed as important projects to be executed during the plan period. About 33 per cent of the total budget allocated to the Planning Research and Statistics subsector has been set aside for this purpose[15].

For the first time provisions have been made for rural library facilities and publications and dissemination of technical information, all under rural development sector. Under Commerce and Finance subsector, provisions have been made for National Trade and Information Network; under the Fisheries sub-sector, for Fisheries Resources Survey, Data Bank and extension services; and under the Industrial sub-sector, for Industrial Data Bank. There is generally increased attention to library and information projects for government ministries, departments, institutions, and for the general

public. However, the basic problems of inarticulate policies on coordination and resource-sharing that characterise the National Development Plans remain to be tackled in the Rolling Plans.

Generally, development planners in Nigeria have failed to see the need for clearly stated and coherent policies to provide a secure and unambiguous place for development information. This can be expected as an outcome of the generally defecture approach to development planning, but it could be rectified if information was given the recognition and attention it deserves.

National Information Policies: Obstacles and Prospects

The basic objective of information policies is to develop effective information system and services. A necessary condition for comprehensive and coherent national information policies is the recognition of information as a necessary resource for development and a clear definition of the role information plays in national development. In the case of Nigeria as a developing country national information policies should focus on the following areas:

- identifying information needs;
- information resource development;
- coordination and resource-sharing;
- information training and education;
- the role of professional associations
- promoting effective use; and
- rural development planning.

While each of these areas is important in developing effective information services, they are characterised by numerous problems in Nigeria. The problems can be better illustrated by examining each area in turn.

Identifying Information Needs

Effective information services are, needless to say, those based on users' needs. In Nigeria, one major problem in this respect is lack of financial resources and support for well designed surveys to determine users' needs with a view to establishing appropriate services. Most user studies are carried out by individuals from universities, often poorly financed, and generally with little or no impact on development decisions. While user studies are very scanty in Nigeria, it is difficult, if not impossible, to provide services on the basis of these needs even where they are known, because resources are far too inadequate to respond to such needs.

The most ambitious user studies in Nigeria so far arise from the Rural Development Information System (RUDIS) project, which was begun in 1981 as an on-going research by Aboyade.[16] This project is mission-oriented aimed at establishing library and information services in Badeku, a village about 17 miles from the University of Ibadan campus. The shortcoming of this research and perhaps of any locally or regionally-based research of this nature in Nigeria, is very limited generalization, because of cultural, economic, social, and educational factors arising from the diverse nature of the country's populations.

Information Resource Development

As in many other countries, libraries are the main information resources-collecting agencies. The National Library of Nigeria (NLN) is by decree of 1970 a legal deposit centre, responsible for receiving all published materials and government publications in the country; preparation of National Bibliographies, cataloguing and classification; and

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sometimes acting as an agent of international library cooperation. These are clearly specified functions of the NLN supported by legal provisions. The NLN therefore has the responsibility of keeping track of information materials within and outside the country. But effective performance of the NLN is seriously affected by various factors.

First, underfunding has always been a chronic problem. Consequently development and expansion programs, in terms of purchase of materials, tools and equipment; maintaining infrastructural facilities such as telecommunication, postal services and transportation, for collection development and follow-up; staff development; research; and physical expansion, have always been adversely affected.

Secondly, many small publishers cannot be identified and therefore a number of them simply fail, with impunity, to comply with the legal deposit law. Similarly, a lot of government documents from Ministries, parastatals, departments and institutions of learning are not collected. Generally, collecting documents produced within the country, especially documents in local languages, mostly published by small publishing enterprises, appears to be more problematical than acquiring those produced outside.

Coordination and Resource-sharing

The only way to achieve effective coordination is through well-defined networking arrangements between information institutions. However, the greatest obstacles in achieving an effective network system in Nigeria are underfunding, and poor tel-communication services. A lot of wasteful duplication therefore exists in Nigeria's

information services, including academic libraries, because they cannot maintain effective communication with one another.

At present, the NLN seems to be the only institution that can serve as a central coördinating agency, or at least provide a mechanism for resource sharing. But given the structural problems, whatever efforts the NLN makes can hardly be effective, especially in rural communities where information services are unorganized and insufficient.

Training and Education for Information Workforce

Information-related courses are fairly represented in Nigerian institutions of higher learning. Beside several colleges of education and polytechnics, there are about six universities that offer such courses with programmes ranging from certificate to PhD. Therefore, a fairly good number of both professional and paraprofessional information workers are produced every year, even though manpower shortage remains a problem, especially in public libraries.

The basic problems of information training and education in Nigeria are inadequate training facilities, such as appropriate teaching materials, and information tools and technologies. Secondly, curricula are not tailored to suit the needs and demands of the grassroots, they are generally biased towards the print-oriented population. Courses on repackaging of information, translation, system analysis and design are generally not available, and there is little emphasis on information technologies and research methods and techniques. The continued deteriorating conditions of higher education in Nigeria worsen this situation further. "Brain drain" has become a disturbing phenomenon with the mass exodus of more qualified and experienced teachers leaving the institutions for better-paying jobs. This has made it

almost impossible to review these curricula on regular basis to respond to the changing needs of the community, as there are no teachers to teach the new courses, nor materials to support the teaching.

Another important problem is lack of adequate attention to continuing education through short courses, exchanges of staff and joint research and other programmes. It is becoming increasingly difficult, even in universities, to organise forums, such as workshops, conferences, seminars, etc, to exchange ideas between information professionals. Opportunities for information professionals, including lecturers in information training institutions, to attend such forums at international, or even national level, are becoming increasingly limited.

As a result of these inadequacies information workers in Nigeria are produced with neither adequate understanding of the rural communities, nor of the full possibilities of their professional role.

Professional Associations

The Nigerian Library Association (NLA) serves as a central umbrella association with branches or divisions in almost all the 30 states, of Nigeria. Even though membership is voluntary all those in the library and information professions, both as individuals and as associations, are supposedly members. The Association depends almost entirely on members' subscriptions to carry out its programmes and activities.

The major problem of the NLA is organisational. There is serious gap of communication between the national

dy and the states' Divisions, as a result of which they carry out their activities independently of one another. There are no clearly defined relationships, in terms of distribution of political and administrative power, financial obligations, rights and responsibilities, between the national body, the Divisions, and the individual members. Consequently, a large number of members do not subscribe to the Association. Therefore, most states' Divisions find it difficult to organize and operate effectively, and this seriously affects the national body since its membership is drawn from the States' Divisions.

This organisational weakness cripples the efforts of the Association to attract public recognition, support, and the legal backing that will enable it to participate in the decision and policy making regarding library and information. Nevertheless, the NLA seems to have great prospects, especially now that information has begun to attract recognition as a vital resource for development. An enhanced image would no doubt be a source of greater strength for the NLA to influence policy decisions regarding the professions generally.

Promoting Effective Use

It is interesting to note that a significant number of academic libraries have user education programmes, generally provided for students only. Such programmes are incorporated into study skills programmes where students are taught information handling skills and how to use a library effectively for various purposes. Apart from this, efforts towards promoting use are generally ineffective.

One basic problem in this area is lack of curricula provision for users' education in Nigerian primary and secondary schools. In fact, most of such schools have no libraries or resources centers. Therefore, most of the students at tertiary institutions have not been oriented to develop a lasting appreciation of the value of library and information.

On the other hand, public libraries find it difficult to organize effective user education programmes largely because of the difficulty in mobilizing users to attend. Services, especially non-print cannot meet the existing needs, and public relations and publicity activities to enlighten users are often given insufficient attention. People therefore develop negative attitude towards library and information services, generally. For the illiterate majority, especially the rural people, library and information services have no relevance to their life, and for the literate, including the highly educated, such services are relevant only when they pursue a formal education.

These problems may explain the ineffectiveness of the attempts by some states to establish rural information services through mobile systems, and the failure of the Readership Promotion campaign initiated by the NLN.

Rural Development Planning

The peculiar circumstances of the rural communities have always informed the decision to make separate policies for rural development in Nigeria's development planning. Therefore, the need to have articulate and coherent rural information policies in Nigeria's national information policies cannot be overemphasized, considering the strategic importance of rural communities in Nigeria's development efforts.

In recent years, Nigeria decided to adopt a concept of integrated rural development, which implies a multi-dimensional

approach in which various programmes - education, agriculture, health, sanitation, water supply, etc - are meaningfully coordinated and interrelated. The objective is to achieve all-round development in the rural areas. However, policy statements have indicated that emphasis has consistently been placed on individual programmes, largely agricultural, rather than on the mechanism that will facilitate a logic of interaction of the various programmes. Policies have not made provisions for procedures of effective enlightenment on how education for instance can contribute significantly to output. Or, how better education, health and nutrition can raise incomes and productivity. Or how mothers' education can help in raising healthier children[17]. This cannot be achieved unless provisions have been made for programmes and activities to be directed towards changing the people's attitudes to see the need and relevance of these efforts, and to be able to sustain them. These provisions are lacking, and so are provisions to keep development planners informed of the changing needs and circumstances of the rural communities on which development policies should be based A survey by the Nigerian Institute of Social and Economic Research (NISER, 1979:89-90) identified the following as problems limiting agricultural development:

- "inadequate extension services.....-
  Activities to enlighten farmers to use new inputs profitably are lagging behind those which supply such inputs, very much like putting the cart before the horse"; and
- inadequate research and lack of data: more effective planning of the agricultural sector would require data of much higher quality than are now available in the system. Such data will be required not

> only on the performance of agriculture (crop production, productivity, capitalization, etc) but also on motivation patterns, pattern and quality of life, aspirations and problems of living, local organizational problems, etc, of the agricultural and rural populations"[18].

One of the objectives of the Fourth Development Plan (1981-85:37)[19] is to address the problem of inadequate transmission of agricultural research information both in quality and quantity, by reducing the existing ratio of 1:2, 500, extension worker to farmers. This problem, however, remained throughout the 1980s.

While nearly all the problems mentioned in each of the areas discussed above have remained, the state's misconception of, and negative attitude to information, seem to be gradually changing for the better. With the National Information Policies being formulated presently one may assume that information has begun to get the State's recognition as an important, if not necessary, resource for development. However, the degree of one's optimism will depend on the actualization of these policies, on how coherent and comprehensive they are, and on the means provided and resources committed for their execution. At any rate, national information policies for Nigeria must address the problems in the areas discussed above. Considerations must be given to providing a means for effective access to, especially home-produced, information, and to mechanisms for coordination and resource-sharing on nation-wide scale.

It is, however, necessary to realize that success in executing national information policies in Nigeria depends on how much attention is given to the peculiar circumstances of the rural communities.

It also depends on the commitment to apply and keep under review legal provision made to guide, govern and regulate such policies.

Conclusion

This discussion has recognized that Nigeria's developmental problems are not as a result of inadequate resources, but of the State's negative attitude towards developing her human resource through effective provision of information services. An attitude believed to be largely developed from the misconception of the role information plays in national development. This is arguably the root cause of the current chaotic state of information services, which include wasteful duplication, poor collection development, absence of mechanism for resource-sharing, shortage of manpower, and weak professional associations, with resultant underutilization of information resources. Rural people who are already marginalized by harsh circumstances - poverty, illiteracy, and traditionalism - are further deprived of access to information with which lasting improvements in their conditions can be made possible.

To address these problems requires a fundamental change in government's perception of and attitude to information and the role it plays in national development. A willingness to formulate coherent and comprehensive national information policies and a commitment to providing resources for their effective execution are positive signs of this change, which seems to have just begun in Nigeria, as National Information Policies are presently being formulated. How adequately these policies will address the current problems and the size of resources to be committed to their execution remain to be seen, perhaps very soon. Whatever the case national information

policies, which do not take cognizance of the special circumstances of the rural communities in Nigeria are very likely to fail in achieving this desired objective. The rural populace constitute the largest segment of the country's population, and "the most valuable resources any country has is its people, the means and the end of economic advance"[20].

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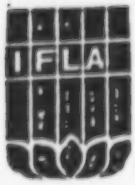

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CONTRIBUTED PAPERS SESSION

LIBRARY AND INFORMATION SERVICES FOR DISABLED INDIVIDUALS

Sanjaya Mishra*

*M.Phil. Student (UGC-JRF), Department of Library and Information Science, University of Delhi, Delhi-110007 (INDIA).

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LIBRARY AND INFORMATION SERVICES FOR DISABLED INDIVIDUALS

Sanjaya Mishra*

(Defines the term 'Disabled.' Discusses the need for Library and Information Services to disabled individuals. Enumerates barriers to quality library and information services. Emphasises the need for special 'Education and Training' of librarians. Makes out a case for 'National Policy' on Library and Information System).

0. INTRODUCTION

Public libraries play a vital role in the spread of education, dissemination of information, utilization of the leisure time for over all socio-economic development of a nation. Libraries are service oriented organizations, existing to satisfy the information needs of the people they serve. The second law of Library Science enunciated by Dr. S.R. Ranganathan - 'Every reader his/her book', emphasises that library and information services are for all, including the educated, illiterate, rich, poor, worker, sick, blind, dumb etc. Libraries should disseminate information and knowledge to all the people for their social, economic and political upliftment, irrespective of caste, creed, colour, religion, nationality, disability and all such barriers. With the end of 1992, the 'United Nations Decade for Disabled persons (1983-1992)' shall be over and it is in this context, the services for disabled individuals are of much concern to the libraries, specially to the public libraries allover the world.

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*M.Phil. Student (UGC-JRF), Department of Library and Information Science, University of Delhi, Delhi-110007 (INDIA).

1. WHO IS DISABLED?

In Library and Information Science literature, words like disadvantaged, disabled and handicapped are used interchangeably. However, they have little differences. Websters' Third New International Dictionary of the English Language Unabridged defines 'disadvantaged' as some one "lacking in the basic resources ... believed to be necessary for an equal position in the society"[1] and 'handicap' as "a disadvantage that makes achievement usually difficult, especially a physical disability that limits the capacity to work."[2] But in practical usage disadvantaged is used as a Broader Term (BT) including physical as well as mental disability, old aged, patients, prisoners, linguistic and ethnic minorities etc., and handicap is used only in the sense of physical and mental disability. Dequin[3] has made a strong case in favour of the use of 'disabled' over 'handicapped'. He states that a "disability becomes handicap only if it prevents a disabled person from overcoming the limitations of disability."[4] A 'disability' can be best described by some sort of physical or mental impairment and 'handicap' denotes a social condition, that means, an individual has limitations.[5] From this discussion, the term 'disabled' is preferred, because it exhibits positive attitude towards the disability possessed by an individual. Thus, 'disabled' refers to a person having one or more of the following impairments, such as visual, hearing, speech, orthopaedic, and intellectual or mental impairments.

2. LIBRARY AND INFORMATION NEEDS OF THE DISABLED

Library and information needs of people in general differ according to their age and level of cognitive development and so is the case with the disabled individuals. However, the disabled individuals may have some needs unique to their disability. For example, a visually impaired individual cannot read the conventional print media and hence needs documents in braille script, talking books etc.

3. LIBRARY AND INFORMATION SERVICE TO THE DISABLED

"Handicapped individuals have the same information needs as the population at large"[6] and hence the libraries serving disabled persons should provide wide range of service for the intellectual, cultural, vocational and recreational needs of their users. Besides traditional services, the library should provide audio-visual materials, braille books, talking books, story hour in sign language, toys etc. for disabled persons. 'Bibliotherapy' can be a helpful technique for serving the disabled individuals. Bibliotheraphy is the process of reducing the mental and emotional strain through systematic use of reading materials in a way that will help the reader to get well and return to the community. It involves the knowledge of the psychology of the reader as well as books that suits to the problem and hence the bibliotherapist should be a professionally trained librarian.

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3.1. Barriers to Library and Information Service

There are four kinds of barriers to quality library and information service for disabled, which are: "1) attitudinal barriers which grow out of prejudices; 2) the barriers of print itself for those who for reasons of visual, physical or neural handicap cannot use it; 3) physical barriers which block access to the exterior or interior of library buildings; and 4) the lack of public awareness of all the information services that libraries are equipped to supply - and ready to supply - to the disabled."[7] The library building should be designed such, that wheel chairs can easily move inside the library and help the physically disabled individuals to browse among stacks to select their desired materials. Many a time the general public is unaware of the specific services provided for disabled individuals by the libraries. In such a case, it is essential that, the libraries should go a step ahead and advertise their services to attract more users for better utilization of resources available in their libraries for disabled individuals.

4. EDUCATION AND TRAINING

Attitudinal barrier towards serving disabled persons in the library is of serious concern. Development of positive attitude towards disabled persons is one of the essential aspect of library education and training. "Many emotions and attitudes lead to prejudice towards the disabled: fear of the

unknown, embarrasment at not knowing how to behave towards disabled persons, belief that one disablity automatically means a person has another also. But regardless of the hidden or acknowledged reasons for prejudice, students in library education programs - all students - should be exposed to some of the literature which dispels myths that surround the disabled."[8] However, it is unrealistic to teach Library and Information Service for Disabled to all students and hence an optional paper on this subject can be highly suited for the purpose. According to Wright, "if libraries are to serve handicapped individual the staff members will need to be educated about the characteristics of various disabling conditions and the varied information needs and resources relevant to the needs of these persons."[9] Thus, it is the responsibility of library schools to design courses in 'Library and Information Service for Disabled and impart education to professionals for development of positive attitude and better services to the disabled individuals. Even, refresher courses can be organised to train librarians serving disabled individuals.

5. NEED FOR NATIONAL POLICY

Many of the less developed countries do not have 'National Library and Information Policy' and in such a condition it is obvious that there is lack of clear cut policy for services to the disabled individuals. For example, in India, the draft policy statement on National Policy on Library and Information

System prepared by Raja Rammohun Roy Library Foundation explicity states that "16. Special efforts shall be made to provide library facilities for the handicapped persons - the blind, the old and other physically and socially handicapped persons such as patients in hospitals, prisoners, orphans, etc. All public libraries shall have adequate stocks of Braille books."[10] However, when the Government of India set up a Committee on National Policy on Library and Information System in 1986, the emphasis on library services to disabled individuals was paid less attention, which is reflected in the following statement: "3.5 The district library should serve as an apex library for each district with public libraries at city, town and village levels constituting important components in the district library system. In addition to the usual services to be rendered by it, it should also provide for learning facilities and recreation for the handicapped. Whenever possible, district libraries and comparable city public libraries should provide literature in Braille."[11] Unless the governments are involved in the provision of right service to the right person at right time in right form, the aim of universal literacy and universal availability of information cannot be achieved. However, voluntary agencies play vital role in the development of libraries and specially in the development of library services for disabled. Thus, there is a need for 'National Policy on Library and Information Services for Disabled', which should specifically state the objectives, services to be provided and standards of services

to legally force the libraries for providing quality library services to disabled individuals. It is in this context international agencies like unesco and IFLA should exercise their influence and provide their expertise and experience to governments and professional associations working at national level in the countries allover the world and less developed countries in particular to improve the services for the disabled persons for their educational and recreational needs.

6. CONCLUSION

A public library has a special responsibility towards disabled persons. They may be blind, elderly people or mentally sick. A public library can alleviate their miseries to a certain extent by providing reading materials and special facilities. There is a need for special 'Education and Training' to librarians, and 'National Policy' on 'Library and Information Service for Disabled' be formulated and implemented effectively. The librarians should keep in view while serving the disabled that they (disabled) can do, what we (able bodied) can. What they need is only our helping hand to do things right.

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CD-ROM Implementation in Developing Countries: Impacts for Improving Services

Marc Keylard
Royal Tropical Institute (KIT)
63 Mauritskade, 1092 AD Amsterdam
The Netherlands

Contributed Paper for the IFLA 58th General Conference (New Delhi, India, 30 August - 5 September 1992)

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CD-ROM Implementation in Developing Countries: Impacts for Improving Services

Marc Keylard
Royal Tropical Institute (KIT)
63 Mauritskade, 1092 AD Amsterdam
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Abstract. CD-ROM implementation can have a major impact on service delivery for libraries and documentation centers. How to adjust library policies to effectively meet the demand of users, means the library management must work out systems to not only optimize personnel management in terms of training and ways and means of service delivery to the end-user community, but also effect policies that will ensure that these resources are shared within the local or national library community. Obtaining and instituting these resources is only the first step. How to effectively implement the service is just as important. Marketing must be an integral, initial step in establishing CD-ROM information services. This paper focusses on CD-ROM implementation and its implications for various library policies in the field of networking, personnel management and information marketing. The findings of this report are primarily based on the experience of the Royal Tropical Institute, Koninklijk Instituut voor de Tropen (KIT), during the implementation of CD-ROM technology in 28 countries in Asia, Africa, the Pacific and the Caribbean.

1 Introduction

For most information professionals, especially those working in "information-isolated" areas[1], many features of CD-ROM (Compact Disc Read-Only Memory) make the decision to start utilizing optical discs very appealing. Direct access to large amounts of bibliographic, full text and other data, at fixed rates, becomes a reality. The retrieved data can be printed or transferred to magnetic media without great difficulty. CD-ROMs effect bibliographic control, information dissemination and repackaging, at an internal, regional, national, and even at an international level.

[1] The term "information-isolated areas" (introduced by Jane Kinney Meyers, see "references") is used - in a certain context - as a more adequate alternative to "developing countries"

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A growing number of CD-ROM titles have entered the marketplace in recent years. The yearly increase of available CD-ROM titles covers a growing number of scientific disciplines. In addition, large and expansive bibliographic files on CD-ROM, such as MEDLINE (medicine) and CAB Abstracts (agriculture), are now also available in specific subsets and published as single CD-ROM titles, specifically serving the smaller and middle sized or specialized libraries and documentation centers. At the same time, new interfaces (the link between the user and the database) have been developed and existing interfaces are updated regularly. The CD-ROM user has a choice of which tools to use for information retrieval and information output. Some files, such as MEDLINE and POPLINE (population, family planning), are even published by more than one CD-ROM company, providing different interfaces for the same database. There seems to be a trend in CD-ROM interface design to serve a wider spectrum of the information community: the complex interface for the trained information specialist, providing a variety of gadgets; and the basic interface aimed at the inexperienced end-user. Plans for a full interface-database compatibility are under way: in a recent interview, Mr Bela Hatvany, president of one of the largest CD-ROM publishing companies, SilverPlatter Information Inc., predicted that his company will introduce CD-ROM database-publishing standards that will enable the user to access any CD-ROM with the interface of its own choice (*The Electronic Library, 1991*). Even hardline CD-ROM skeptics like Mc Séan (*Mc Séan, 1992*) do not express any doubts that in developing countries, CD-ROMs play a useful part in libraries and documentation centers.

All these factors contribute to the fact that more and more information professionals are considering, now or in the near future, the incorporation of CD-ROMs in their professional routine.

The introduction of CD-ROMs in many information units in developing countries have increased the potential for service delivery of the units and changed the daily routine of many information professionals. Some direct implications CD-ROMs can have on the information unit, especially in information-isolated areas, are discussed. It is argued that many CD-ROM pitfalls need to be addressed by information personnel and management of the information unit or its parent organization. The impacts of instituting CD-ROM based information services are grouped around three subjects: networking, personnel and marketing. These impacts can be acknowledged at an early stage and addressed in the CD-ROM implementation plan to ensure maximum utilization of the CD-ROM based onformation services.

2 Background Information

The findings presented in this paper are primarily based on the experience of the Royal Tropical Institute, Koninklijk Instituut voor de Tropen (KIT), during the execution of 50 CD-ROM projects in more than 25 developing countries (see table 1).

In addition to KIT's bibliographic database publishing activities and consultancies in the field of information management, since 1989, KIT staff members have executed projects to implement CD-ROM work stations in developing countries for a variety of donor agencies. In the field of agriculture and rural development KIT executed the CD-ROM Programme of the Technical Centre for Agricultural and Rural Cooperation (CTA) in the ACP (Africa, Caribbean, Pacific) states. In the field of health, family planning and population KIT assisted the Johns Hopkins University's Center for Communication Programs (USA) with its POPLINE CD-ROM Training Program in countries in Asia and Africa. In addition CD-ROM implementation (or related) projects were executed for other donor agencies and organizations such as DGIS (the Dutch Directorate General for International Co-operation), the EC (European Community) and FINNIDA (Finnish International Development Agency). KIT also participated in the preparation and execution of workshops aimed at both university librarians and academic administrators on the topic of CD-ROM technology in developing countries.

KIT's expertise related to CD-ROM implementation in developing countries is aimed at the following areas:

* advise on technology (hardware, software), existing sources of information and database management
* investigate and advise management on training that would be required
* conduct on-site training courses and workshops
* provide remote help-desk facilities
* general project management

The CD-ROM training sessions which took place at the institutions involved in the projects, form an important aspect of the CD-ROM implementation programme. Training could be aimed at experienced or inexperienced information personnel (see tables 3 and 4), due to a flexible modular approach of the on-site training course. A maximum training package comprised the following elements:

* basic skills in operating personal computers
* an introduction in computerized bibliographic databases
* information retrieval from CD-ROMs
* information repackaging
* information marketing
* database production and design

The organizations involved in the many CD-ROM projects could vary from main university libraries to smaller research and extension units (see table 2).

2.1 Tables

table 1 **Countries where CD-ROM Work Stations were Implemented by KIT**

Bangladesh	Ivory Coast	Surinam
Botswana	Kenya	Swaziland
Burkina Faso	Lesotho	Tanzania
Cameroon	Malawi	Trinidad & Tobago
Chad	Mali	Western Samoa
Egypt	Nigeria	Zaire
Ethiopia	Papua New Guinea	Zambia
Fiji	Philippines	Zimbabwe
Ghana	Sierra Leone	
Indonesia	Sudan	

table 2 **Type of Organizations where CD-ROMs were Implemented**

Research Institutes	30%
Extension & Training Institutes	28%
Universities	24%
Ministries	12%
International Organizations	6%

table 3 **Type of Trainees Operating the CD-ROM Work Station**

Librarians & Information Specialists	47%
Administrative Staff with Info Tasks	34%
Researchers	19%

table 4 **Experience of Trainees with Automated Literature Searching**

No Experience	67%
Experience with Local Databases	17%
Experience with Online Databases	16%

table 5 **End-User Access to CD-ROM Work Station**

Via Intermediary Only	73%
Direct & Via Intermediary	19%
Direct Only	8%

3 CD-ROMs and Common Pitfalls

CD-ROMs have a great potential especially for libraries and documentation centers in information-isolated areas. While acknowledging the definite advantages of CD-ROM technology, a few potential problems need to be mentioned.

* *misconceptions surrounding the product*

  A CD-ROM workstation is not a question-and-answer machine. Bibliographic databases on CD-ROM are reference tools. Full text databases on CD-ROM are just another way of publishing books, journals, etc., with a text retrieval tool. In some cases they simply function as photocopy machines to collect some revenues for reproducing material under copyright. Misconceptions about CD-ROMs generally lead to disappointment and under-utilization: a waste of, frequently, limited financial resources.

* *the assumption that no training is needed*

  When CD-ROMs were launched in the 1980s, many producers praised the user-friendly interfaces, as opposed to the online search systems, used to access their products: just hit the keys on your keyboard and the long-awaited answers scroll onto your monitor. This might be true for the experienced, well educated librarian who has worked with computers and bibliographic databases in his/her career before. However, for a lot of librarians working in information-isolated areas, where in general there is a lack of bibliographical control, bibliographic database search techniques are not widely known or utilized at all. Many donor-driven CD-ROM initiatives without a training component often resulted in situations where CD-ROM equipment was not fully utilized, if utilized at all, resulting in a librarian's negative attitude towards new information technology.

* *little conception of the technology involved*

  CD-ROMs operate in the "periphery" of personal computers. These computers need maintenance and qualified personnel to configurate and install the system and to help out in case the system is down. Basic knowledge of operating software (MS-DOS) is vital for anyone in charge of a CD-ROM system. Some knowledge of word processing software is a requirement to generate and repackage output from the CD-ROM for

further dissemination. If no qualified computer personnel are employed at the library, which is often the case in information-isolated areas, library staff should at least be trained in the basic skills of operating computers. For more complex maintenance and trouble shooting, service contracts with local computer suppliers should be established. In this context it should be noted that purchasing hardware directly from computer suppliers in industrialized countries may seem cheaper in the short run, but contracting local suppliers for the maintenance of equipment they did not sell is often impossible or only at high cost.

* *lack of incorporation of CD-ROMs in library services*

  Instead of going through a relatively slow process of gaining access to large databases, libraries in developing countries can use CD-ROMs to quickly go from limited services to more sophisticated forms of service based on information retrieval from large, comprehensive sources of information. Not only library staff should be trained, the library's clients should at least be made aware of the new service, and be informed through demonstrations and workshops. New services based on the availability of large files on CD-ROMs, such as current awareness services, selective dissemination of information, can be instituted. New client target groups can be serviced.

* *unrealistic budgeting*

  The majority of CD-ROMs containing bibliographic data are sold on a yearly subscription basis. Should the CD-ROM subscription be cancelled, many CD-ROM suppliers require that all discs be returned. CD-ROMs also have hidden costs: computer supplies such as floppy diskettes, printer supplies and paper should be accounted for, as well as writing-off replacement of hardware. Long-term budgeting to guarantee CD-ROM services over a longer period is essential.

Most of the above-mentioned problems can be avoided if a sound, realistic implementation plan is produced prior to purchasing and utilizing computers and discs. In many cases operating CD-ROM services in libraries in developing countries is a first step in automating library services. CD-ROM implementation in libraries should therefore be treated like any automation plan.

4 Networking

The availability of large amounts of bibliographic information on CD-ROM in libraries where hardly any bibliographic material was present before, can often boost network activities between libraries and documentation centers. The information units with CD-ROM capacity generally have to expand their information services to a wider public, including other organizations in more remote rural areas. In many donor-driven CD-ROM initiatives the capacity of organizations to maintain these network activities are considered to be an important site selection criterium for the participating organizations in the project.

The institutions with CD-ROM capability can function as regional information resource centers (*Hartevelt, 1991*) or as national bibliographic focal points (*Nazim, 1988*), serving the bibliographic information needs in the area.

4.1 Networking and Bibliographic Control

Networking initiated through the availability of bibliographic CD-ROMs can take many forms. To illustrate this idea of networking, beginning with the implementation of a CD-ROM work station, the Food and Nutrition Project (FNP) of the Association of African Universities (AAU) can serve as an example.

This project, started in 1991 and currently under way, is being implemented by KIT. The project to strengthen the AAU/FNP information activities was based on using existing information sources, as well as the development of an African database on Food and Nutrition. The database activities being undertaken at the AAU/FNP headquarters in Accra (Ghana) serve the information needs of the 94 AAU member universities and will eventually establish the exchange of information on African research in the field of food and nutrition. Initially, a CD-ROM work station was installed at AAU/FNP headquarters, operating the FSTA (Food Science and Technology Abstracts) database on CD-ROM. Documentation staff received training in information retrieval and information repackaging. Through the existing newsletter of the AAU/FNP, which was sent to out to all member universities, the new bibliographic services of the documentation center of AAU/FNP were presented. Request forms for database searches were sent out to member universities of the AAU. In return for providing the bibliographic services, the AAU/FNP requests users to send back material on local research in the field of food and nutrition. This material functions as a main input source for the locally produced database on African research on food and nutrition.

In her article describing the introduction of CD-ROM based reference services in Malawi, Jane Kinney Meyers (*Kinney Meyers, 1991*) notes that CD-ROMs seem to have a great impact on the problem of poor bibliographic control in information-isolated areas. The findings of the Royal Tropical Institute (KIT) during the execution of many CD-ROM projects are in line with this conclusion. Many organizations where KIT implemented CD-ROM stations have since developed plans to establish local computerized databases. Bibliographic files on CD-ROM, formerly not accessible, function as an example for many librarians to disclose their own collection. Through operating various CD-ROM services, librarians become familiar with the contents and structure of many bibliographic databases, and some are confronted with the lack of reference to indigenous research, grey literature, etc, in most databases produced in industrialized countries.

Providing current database producers with local material to be abstracted and included in their databases on CD-ROM is one way of improving the lack of reference to indigenous research. Many librarians, however, are more attracted to producing their own bibliographic files serving the specific needs of their end-user community. The computer hardware, already available and used to operate the CD-ROMs, provides the technical tool to establish such databases. Coordination of these efforts on a local, regional or national level is vital to success and to ensure the exchange of information without great difficulty. Through organizing meetings and workshops, experiences are exchanged and expertise shared within the local or national library community.

4.1 Networking and Document Delivery

Many libraries offering CD-ROM services are confronted with the demand by their users for document delivery services, the supply of photocopies of documents referenced in the bibliographical databases on CD-ROM. Especially in the case where a literature-search is conducted on a database containing abstracts, the user may take a well-considered decision to obtain the complete article. Tracing the original documents should not always have to be an exhaustive frustrating exercise. Many donor-driven CD-ROM projects provide financial means to purchase the full articles as originals or photocopies, but in many cases this is an expensive service. In many cases, however, the original documents can be obtained at less costs from other libraries in the region, which denoted the necessity to strengthen relations with national or local, specialized libraries.

5 Personnel

It goes without saying that personnel of the library/documentation unit is a crucial factor in successfully operating the CD-ROM work station and maximizing the use of the available resources. Training of personnel during the implementation phase should therefore be an issue of major interest to the management of the library/documentation unit. A number of management related issues regarding personnel operating CD-ROMs are presented.

5.1 CD-ROM Systems Manager and CD-ROM Database Manager

The responsibility for effectively operating CD-ROM services in an information unit is generally directed to a CD-ROM systems manager and a CD-ROM database manager. These tasks can be performed by one person, in the case of a small information unit, or divided between several persons, in a larger information unit.

The main tasks of the systems manager are: basic trouble shooting on and installation of hard- and software, management of computer supplies, assisting with more complex methods of information repackaging, and communication with hardware and software suppliers and maintenance personnel. Especially with donor-driven CD-ROM activities, the systems manager should be able to adequately report on any occasional breakdown of the CD-ROM system which is vital for effective remote help-desk services.

The CD-ROM database manager carries out literature searches on the database and/or provides assistance to the end-users when they do their own literature searches. This person must be knowledgeable in general aspects of automated literature searching (full-record searching, field searching, Boolean logic, etc.) and has to combine basic subject knowledge on the contents of the database with the structure (fields, coverage, index terms, thesauri) of each of the databases available.

5.2 Information Intermediary and/or Direct End-User Access

One of the operational decisions library/documentation management have to make, is how to make the CD-ROMs available to the end-users. Searching CD-ROMs can be restricted to the CD-ROM database manager functioning as an information intermediary, or can be left to the end-user directly. When making such a decision, both organizational and cultural factors must be taken

into account. In order to provide end-user access to the CD-ROMs, the work station must be located in those areas of the library/documentation premises that are accessible to the general public. In many cases, for both technical and security reasons, this can not be realized. When the CD-ROMs are made available to the end-user via the CD-ROM database manager as an information intermediary, the current role and status of that intermediary should be taken into account. In general, the role and status of service personnel can be appreciated differently. The service of the information intermediary, for instance, can be seen as helpful assistance or as unwanted and unaccepted supervision.

Especially in the case where the CD-ROMs are not directly available to the end-user, but only through the CD-ROM database manager as an information intermediary, one of the key aspects of his/her task is to translate a particular request for information into concepts that precisely fulfil that specific request. Through interactive communication with the end-user, using both a supplementary and a critical approach, the database manager must be sure that the end-user's request for information is satisfied. End-users which are either supplied with too many references (and probably too many irrelevant references) or with too few references, are unsatisfied customers and therefore less likely to call upon the service again. These communication techniques between the intermediary and the end-user must form an integral part of the training programme of the CD-ROM database manager. The quality of information service delivery, like any service delivery, is for a large part based upon a clear insight into the needs of the end-user through communication with this end-user.

In the situation where the CD-ROMs are made available to the end-user directly, the CD-ROM database manager must be on stand-by to introduce the CD-ROMs to "newcomers" and to provide assistance in database searching, generating output etc., when this is needed. In addition to the manuals and quick reference cards which generally come with the CD-ROMs, it is advisable that additional, more customized search-aids are produced, indicating the major search commands, explaining the contents of the fields in the database, etc. In addition, the specific subject coverage of each of the CD-ROMs can be described in a leaflet to help the end-user choose the right CD-ROM title(s) for a specific search.

Although many novice CD-ROM users are able to retrieve some output from CD-ROMs without being trained extensively, it appeared that they are not 100 percent successful: too many irrelevant records, or too many relevant records not retrieved. For those end-users the service of the CD-ROM database manager is vital to compile a search strategy that will result in a maximum of relevant records retrieved.

For reasons mentioned above, in most information units where CD-ROMs were implemented, direct end-user access was not offered to the clients, only through the CD-ROM database manager (see also table 5, "background information").

5.3 Control on Document Delivery

Requests for document supply resulting from the CD-ROM database search, could also be handled best by the CD-ROM database manager. Her or she must be familiar with the various sources where the original documents can be found, or through which channels they can be obtained. Apart from the fact that many CD-ROM database producers offer document delivery services the database manager should also be aware of other sources and channels through which the documents may be obtained: from the library's own collection, from other libraries in the region, through international institutions such as the British Council, etc. The database manager should control and advise on the budget for document supply, and should record, organize and store the documents already obtained through previous document delivery requests. In addition he/she can inform the end-user how long it can take to obtain the original document which in some cases influences the decision whether or not to start the process of obtaining the document.

5.4 Status of Information Personnel

Many articles, describing the poor information facilities in a large number of developing countries, indicate as one of the constraints to the development of appropriate information facilities, the lack of "authority" of the information center and the low status of the information professional. One of the immediate effects resulting from the implementation of a CD-ROM work station in the library/documentation unit was that in many cases the status of the unit increased rapidly. Taking advantage of this change in status, more clients can be attracted to utilize the information resources. More clients can also be satisfied in their information needs, resulting in a higher appreciation of the services of the library/documentation unit and increasing demands for services and higher expectations of the quality that can be delivered.

The increase in status of the information professional is certainly not restricted to the situation of the information professional in developing countries only (*Simmons Brown, 1991*). However, the effect seemed especially noticeable in organizations where the library/documentation unit became the first department to have access to modern computer equipment; and, the library/documentation

personnel the first employees knowledgeable in operating computer equipment.

6 Marketing CD-ROM based Information Services

Since the past few years CD-ROMs are playing an increasingly important role in the dissemination of bibliographic data in developing countries. Having direct access to these bibliographic sources must be seen as only the first step in improving library/documentation services. Optimizing the use of these resources and reaching out to new sectors of the user-community is a precondition and an essential activity to the success of any information unit. In a majority of the cases where KIT implemented CD-ROM projects, the information unit did not render any automated bibliographic services before (see table 4 "background information"). CD-ROMs therefore did not automatically fit into existing information services operated by the information unit and already known to and used by the public. Marketing of the CD-ROM based information services had to be introduced and incorporated into the daily routine of the information professional to raise awareness of the public for this new service and to ensure maximum use of the information resources.

Before attention is paid to some aspects of marketing of CD-ROM based information services, some issues related to marketing of information in general are discussed.

6.1 Marketing and Service Personnel

In the approach to the marketing of services, as opposed to the marketing of goods, service personnel plays a key role in the entire marketing concept. The reason for this is that the actual service is created in close collaboration between the service provider and the client. The client has a participating role in the production of the service. If the client is not participating, the service will lose quality. The active participation of the client should therefore be stimulated by the service provider, if he/she wants to create a service of acceptable quality. In the case of an information unit operating CD-ROM services, the interaction between the client and the CD-ROM database manager is of equal importance as the CD-ROM discs that are inside the CD-ROM readers. Marketing of information services can therefore only be successful if the information professional providing the service is closely involved with the design and execution of the marketing plan.

Marketing of information services is certainly not a new concept. However, it

appears that in many information units the marketing concept is not applied sufficiently. Pontigo (*Pontigo, 1991*) argues that 'it is very likely that the poor diffusion of the use of marketing techniques stems from attitudes and traditions, rather than logical facts...' and continues that in order to enter the era of changes in the information world, it is vital to 'break old casts and to get out from our Babel Tower and meet the user, as well as re-invent better ways to fulfil his service requirements'.

6.2 Marketing: Bottom-Up and Top-Down

In general, the information services of the information unit are incorporated in the goals and priorities of the (parent) organization. Marketing of the information services should therefore always be in line with these goals and priorities. However, such a top-down approach can easily alienate the information unit from its clients when the marketing concept is strictly derived from that top-down approach. Only when the top-down strategy is constantly tested and adjusted to the clients' needs (bottom-up) can the marketing plan contribute to a situation in which the use of the information resources is optimized. The information professional should therefore be informed, on a continuing basis, on the clients needs and has to adjust his/her services accordingly based on these findings.

6.3 Marketing: The Value of Information

The value of information and the justification of information-related investments are closely linked together. In this information era where the amount of literature doubles about every 17 years (*Griffiths and King, 1991*), no researcher, policy maker, etc., can be well informed on the results of scientific research without consulting secondary (bibliographic) sources. Lack of consultation of bibliographic databases may not directly be felt by the researcher, but definitely contributes to duplication of research and waste of human and financial resources. The financial losses that result from duplication of research are not easy to calculate but occasionally estimates are made and result in astronomous figures: in the European Communitiy's private sector an estimate of a loss of 15 billion ECU per year, directly resulting from duplication of research is reported (*de Lange, 1991*). In a US context it is estimated that the average savings of reading a scholarly article are 265 US dollars, for reading a technical report it even mounts up to 708 US dollars (*Griffith and King, 1991*). Clearly these estimates on losses and savings alone, indicate a value that can be attached to information, and more than sufficiently justify most investments for primary and

secondary information sources.

Marketing of information services should not only be directed to the end-user of the information. In many situations the parent organization, local or national governments or donor agencies are partly or fully financing the availability of information. Therefore the marketing of information services should be directed to all those who assure the financial means for it. On a micro level, the information professional providing CD-ROM based information services could provide the funding organizations with estimates on losses resulting from duplication of research, justifying investments in hardware, software and discs. However, it would be more efficient if successful examples, derived from his own professional work, would be collected and reported. Collection of success-cases (situations where a client's information need was satisfied and directly resulted in a 'positive event') together with monitoring the frequency of use of the CD-ROMs, can greatly influence a positive attitude from management and financers towards investments in information services.

Registering the use of a CD-ROM work station is a small effort compared to the benefits which can derive from that activity. CD-ROM monitoring systems can vary from simple evaluation forms to be completed after each search session, to more complex, automated CD-ROM monitoring systems which are currently on the market.

6.4 CD-ROMs: a Starting Point for Marketing Activities

Marketing of information services should not be limited to CD-ROM based information services alone. For many information units where the marketing approach has not formed an integral part of management, the introduction of CD-ROMs can function as a point of departure for developing marketing techniques in the daily routine of the information professional.

For many library/documentation units, CD-ROMs have the potential to help initiate and sharpen the marketing activities because they create a favorable environment for such activities. CD-ROMs enable the information unit to:

* *meet more user groups and demands*

  Having institutionalized a CD-ROM work station, the information unit "suddenly" has access to comprehensive files containing large amounts of data. Reaching out to more user groups and intensifying service delivery to existing target groups requires a pro-active, as opposed to a passive

marketing approach

* *develop customized information services*

  From these large amounts of data customized output can be produced in a short time using automated retrieval and output techniques. The data can be easily reproduced, repackaged and transferred onto magnetic and printed media at relatively low cost; according to the various customer's groups and their specific needs.

* *attract more customers*

  Apart from the increase in status of the unit, as discussed before, CD-ROMs generally have a triggering effect because the technology is appealing for many end-users which greatly stimulates interest and a positive attitude towards using the new service. Some libraries even report (*Simmons Brown, 1991*) that after CD-ROMs were made available in the library, the amount of requests for conducting literature searches increased by a factor of four.

An example of an information service with a pro-active character that can easily be initiated through CD-ROM technology is the Current Awareness Service. After identification of the existing and potential target groups, and the examination of the user profiles, selections of references retrieved from the CD-ROMs can be disseminated (either in printed or magnetic format) to the end-user.

Selected references that might draw attention of the public can easily be included in newsletters. With many CD-ROM retrieval software packages, search concepts can be stored and used again on CD-ROM updates. Using this feature, SDI (Selective Dissemination of Information) services can be provided on a ongoing basis. For administration purposes, the existing computer capability can be used to store client names and addresses.

The public must be informed on the existence and possibilities of the acquired CD-ROM system. Special attention can be drawn to the CD-ROM services in the (parent) organisation's newsletters, with samples of selected references from the CD-ROMs. Workshops and demonstrations for the research community, the organization's management, students, etc., raise awareness of the new services. If seminars, workshops or other meetings are organized locally, a special subject-related bibliography can be produced and disseminated among the participants. Many activities for raising the public's awareness of the CD-ROM

service can be initiated but these activities are only successful when they are undertaken on a ongoing basis.

7 Conclusion

CD-ROM technology has the potential to revolutionize information services in developing countries. Databases which were previously only accessible via the telecommunication network - and thus virtually inaccessible to a large number of developing countries - are now directly accessible on personnel computers. As a result many (donor-driven) CD-ROM initiatives were (and are) undertaken to strengthen the capacity of a variety of information units in developing countries. Although potential problems related to the technology should be addressed when CD-ROMs are introduced in a library/documentation center, the execution and evaluation of many donor-driven CD-ROM initiatives indicate that most technological pitfalls can be surpassed efficiently. The problems that arise from handling large amounts of information in information units that previously did not have access to these sources, are often more complex. Management and optimum utilization of these information sources are of major importance to the successful implementation of CD-ROMs. Especially for information units operating in information-isolated areas, CD-ROM based information services seldom fall into existing structures of the unit. Management of these units must work out systems to not only optimize personnel management in terms of training and ways and means of service delivery to the end-user community, but also effect policies that will ensure that these resources are shared within the local or national library community. Networking personnel and information marketing form the key-elements in such policies.

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EXTR 2

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CONTRIBUTED PAPERS SESSION

NATIONAL INFORMATION POLICY AND THE THIRD WORLD COUNTRIES

Kishni Navalani
Professor and Dean
Faculty of Arts and Social Sciences
Department of Library and Information Science
Punjabi University, Patiala, 147002, Punjab, India

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ABSTRACT

Gives need and history of national information policy. Discusses historical perspective, aims and salient features of the proposed National Policy of Library and Information System of India. Highlights the gaps and disparities in information access among various segments of population in the Third World countries. Identifies main problems and roadblocks in accepting and implementing the policy. While raising some key questions, stresses that the policy should give emphasis to the needs of the children and the new literates, the rurals and the have-nots of the information, and makes a few suggestions.

INTRODUCTION

Neo -classical economic theory gained popularity in the post war period, which identified one of the factors of economic growth in man and the latter in education. "A positive correlation was found to exist between the level of development and literacy."[1] Economic and fiscal opinion continued to build models of economic growth which took into consideration role of capital investment in human beings, human skills and trained imagination. Events further gave support to the view of education. Now, aim of "development is the constant improvement of the entire population on the basis of its full participation in the process of development and a fair distribution of benefits therefrom."[2] Information plays too important a role in society and its development. Therefore, information policy is indispensable as never before in order to set out basic directions, to establish and maintain a consistent framework to meet the developmental, educational and cultural needs, to adapt to the increasing uncertainity accelerated by change and complexity, to promote better use of resources so as to ensure equalisation of opportunities. "The fundamental premise of an overall national information policy is that any economic, social and political system will perform more efficiently if a mechanism is provided which ensures that government officers, decision makers, managers and researchers have timely access to up-to-date, relevant and reliable data and information."[3]

Policy is the main instrument of directing, planning, managing and development of library and information services in a country.

The concept of library and information policy is new and recent one though in other areas it has many innings and keeps being revised and adapted according to changing needs and trends. In 1967 Unesco published a booklet Planning library services, prepared by Carlos V. Penna, it pleaded that "the provision of effective library and documentation services to promote education and research at different levels and economic and social endeavour of various kinds requires that they be organised within an integrated system."[4] The over-riding influence of Carlos Penna, and his enthusiasm for national planning provided the impetus for the inauguration of the series and his ideas on the subject struck a responsive chord.[5] The new approach found adoption in the form of over all national library development planning in conjunction with over all national plans. The Intergovernmental Conference on the Planning of National Documentation Library and Archives Infrastructures (NATIS Conference) was held in Paris in 1974. One of the requirements of NATIS was identified as a national information policy. "Unesco had two studies made with a view to formulating a general policy of national planning of infrastructures for documentation, libraries and archives".[6] Among the five main themes of General Information Programme (PGI) identified, the first and foremost was "Promotion of the formulation of information policies and plans (National, regional and international)."[7] UNISIST meetings of experts on information policy and planning and UNISIST II Intergovernmental Conference, 1979 also recommended that all countries should elaborate national information policies and

plans and organise and co-ordinate information resources in order to serve national development needs more effectively.[8] Many documents were since then issued in this regard.

In recent times a number of developments have conspired to stimulate interest in national library and information policy. Many Third World countries are formulating/have formulated National Policy on Libraries and Information Services (NPLIS) e.g. India,[9] Zambia,[10] Egypt.

NATIONAL POLICY ON LIBRARIES AND INFORMATION SYSTEM IN INDIA.

Historical perspective

"The need for an integrated library system for India can be traced to the writings of Dr.S.R. Ranganathan as early as 1944".[11] His book entitled Post War Reconstruction of Libraries pleads for public libraries both urban and rural.[12] He suggested that "The library edifice of post-war India should be so planned that primary libraries are attached to regional centres, regional centres to provincial central libraries, these again to the national central libraries and this finally to the national central libraries of other countries and international library centres".[13] Because of his efforts, three states-Tamil Nadu(1948), Andhra Pradesh(1960) and Karnataka(1965) - had Public Libraries Acts.

After Independence, Government of India made various attempts to improve library service in the country. National Library of India Act, 1948 changed the name of the Imperial Library, Calcutta as National Library, India. Delhi Public Library was established in 1951, thanks to the Unesco sponsorship as a model

public library. 1952 saw establishment of Indian National Scientific Documentation Centre(Insdoc). The Delivery of Books(Public libraries) Act was amended in 1956. Five Year plans included funds for improvement of libraries and the Community Development Programme gave impetus to rural libraries. Advisory Committee for Libraries[14] was set up in 1957, which recommended library service "free to every citizen of India" and a pattern of library service in the country. Committee on Plan Projects (Study Team for Subjects Educational Schemes)[15] and the Working Group on Libraries(1964)[16] followed. Raja Rammohun Roy Library Foundation, an autonomous organisation was established in 1972 to promote and support library movement in the country, to provide funds to public libraries, and "to enunciate a national library policy"[17].

The fate of academic libraries is tied up with education policy and efforts in the country. University Education Commission (1948) and Secondary Education Commission (1952) recommended for providing academic libraries. The University Grants Commission (UGC) was set up in 1953 and is devoting attention towards the development of academic libraries at college and university level. The UGC appointed a library committee under the chairmanship of Dr. S.R. Ranganathan. Education Committee(1964) and subsequent National Policy on Education, 1968 recommended that the library should be an important centre of education. Draft National Policy on Education, 1979 under post literacy programme stipulated that "the development of a rural library system is necessary to support the programme of continuing

education."[18] Education Policy, 1986 also reiterates provision "in all educational institutions for library facilities".[19] The Association of Indian Universities took initiative in 1986 to formulate a National Policy on University Libraries. The University Grants Commission has suggested for Information and Library Network (INFLIBNET) to interconnect the people and resources of all universities, institutions of higher education and research laboratories.[20]

Under UNISIST Programme 1971, India created focal points. Unesco subsequently promoted NATIS concept. India adopted National Information System for Science and Technology (NISSAT) in 1977, a multi-tier system at present having national focal points, eight sectoral information centres, three information analysis centres, etc. Besides many databases and some networks have been created in various fields. India is also participating in development of international databases, such as INIS, AGRIS, APINESS. Planning Commission appointed Working Group on Modernisation of Library Services and Informatics for the Seventh Five Year Plan 1985-90(1983). It attempted "to present an integrated plan balancing the modernisation and the conventional imperatives."[21]

Mention may be made here of National Information Centre, Planning Commission, Government of India, which was initiated in 1980 and is so far the largest computer system. It is developing a network - NICNET - to provide computing and communication infrastructure to aid planning and monitoring of schemes and decision making activities in the country. The system is

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presently connected with all the states and union territories, through interactive terminals in 437 district headquarters and intends to connect 51,000 block units.[22-23]

National Policy on Library and Information System was formulated by the Raja Rammohun Roy Library Foundation and also by Indian Library Association. It was a theme of discussion of conferences in 1977 and 1979 of Indian Association of Special Libraries and Informatin Centres and of All India Library Conferences in 1984 and 1991 of the Indian Library Association. Public opinion was also sought.

The Department of Culture, Government of India set up a Committee on National Policy on Library and Information System in 1985. The final report was submitted to the Government in 1986.[24]

Aims

Its main aims are :-

1. To foster, promote and sustain, by all appropriate means the organisation, availability and use of information, in all sectors of national activity;

2. To take steps for mobilising and upgrading the existing library and information systems and services and initiating new programmes relevant to our national needs, taking advantage of the latest advances in information technology, etc.

Salient features

The most important task according to the policy "is to establish, maintain and strengthen the free public libraries". The thrust area should go to rural public library. The district library will be the apex library in a district, with public libraries at city, town and village levels as components. All the libraries in state will form part of a network and the state network should eventually connect with the national level. Each state should

enact its own library legislation.

The policy lays emphasis that libraries are central to education hence no school or college should be established without a library and a qualified librarian. Primary schools, where such facilities cannot be provided, should share the resources of the community library and vice versa where community library does not exist, the primary school library be developed as to serve as the base of the village library. There must be a state level agency for proper development of school libraries of the state and a national agency for co-ordination at the national level.

For college and university libraries the policy invests authority in the University Grants Commission and suggests that all these institutes should share resources and establish linkages among themselves.

The policy recommends that the National Information System for Science and Technology (NISSAT) scheme of providing for different levels such as national, regional, sectoral and local should be further strengthened and expanded. Special libraries in Social Sciences and Humanities and in language areas should be organised in similar systems. Information systems and data banks in various fields be developed. Parent institutions should have a strong commitment to provide support and infrastructure for libraries.

The policy stipulates functions of the National Library of India, Calcutta and recommends for a system of National Libraries consisting of the National Library, Calcutta, National Depository Libraries, national subject libraries and national documentation/

information centres, dormitory libraries, national databases of manuscripts, etc. The National Library of India should establish effective linkages with all other National Libraries through a National Library Board and also between libraries, archives and museums.

Other areas, the policy touches are: manpower, modernisation of library operations and services and use of technology, union catalogues, standards, removal of barriers in communication, such as high postal tarrifs, etc.

The principal recommendation of the Committee is a national network of libraries within which will be accommodated libraries of different kinds and at different levels from the rural society to the modern city, from the school to the research organisation. And the implementing agency for it, as it is in the USA, would be National Commission for Libraries and Information Systems. It is to be constituted by the Government. There is a proposal for establishment of separate division in relevant ministries of states and Union Government for promoting the development of library and information systems. The policy states that the necessary financial support 6-10% of the education budgets for system will be made available by the Government of India and the state governments.

PROBLEMS IN THIRD WORLD COUNTRIES

The Third World countries including India are mostly at a crucial and complex juncture. They are living through several centuries at the same time. Some people are living lives below poverty line, women suffer silently lives of drudgery. There are people in between trying to come up e.g. Craftsmen and artists who

excel in their sphere without literacy. At the other extreme are scientists, technologists, researchers, managers who can compete with the best in the world. The target groups or population segments have inequalities for whom the NPLIS is designed. And the organisation of the system has to take into consideration this complexity. Considering all these facts, the National Policy in India rightly gives emphasis to public libraries and thereto rural areas which are most neglected.

Tradition is the tallest hurdle in making use of library system. In the developed countries, library and information system is intertwined in the education, work, culture and society. It has taken more than a century to develop. On the other hand, indigenous traditions are formidably rich, mostly in Asian countries. They go back to thousand years. For example, India had a very advanced civilisation more than thousand years ago. Higher education and scholarship were encouraged. There were world renowned centres of learning having libraries, where even foreigners used to come in those days. They developed art and architecture of unsurpassed excellence. There was for masses and which is still true in many places, an informal kind of family education by which skills, sometimes a modicum of literacy and attitudes towards life, community and its institutions, the historical past, the cosmos and spiritual life were handed down from one generation to the next. "Education of this type will tend, however, to be conservative, neutral, if not inimical to economic development,"[25] and change in such type of education and society is to take into consideration oral culture.

Barring elite class, there is hardly place for literacy and libraries. Mostly, library culture is conspicuous by its absence in rural areas in most of the Third World. And wherever it is, only a very small percentage of population is making use of them. The masses, due to ignorance do not perceive literacy and library services important to them, because their ancestors have survived for centuries without them. Therefore, as it is rightly remarked, "An important choice is to be made: do we want to create a written culture and break with oral culture? Do we want to create synthesis?"[26]

Since 1950, most of the Third World countries have seen expansion in education and literacy. But in this process, library services provided to the educated community grew not from bottom to up, but the other way round. Elementry schools have hardly libraries. This has adverse effect on habit forming of reading and using library. With examination oriented education system, in these countries most of the young persons have minimal interface with the library, they usually stop using it as soon as they complete their education or are out of it because of dropout. The NPLIS of India, focuses attention on children and school libraries and proposes that in every village either there should be primary school library or a community library, as aforesaid.

Africa, Latin America and Asia have 60.3%, 37.4% and 20.2% illiteracy, respectively. Condition in every country, and within each varies widely. Public authorities are unable to provide enough places to ensure effective access to schooling for all. Moreover, the development and the customs are still such that

young children often contribute to productive activities and hence there is an opportunity cost.[27] The Third World countries have launched massive literacy compaigns and made policies for eradicating literacy, expanding school, adult and functional education, their goals being universal education. But their targets are more quantitative than qualitative, which is obvious because of population explosion, paucity of funds and time limits. The most serious deficiency hampering educational efforts is the scarcity of reading material and libraries because people have nothing to read and nothing to get from. Eventually, the persons acquiring ability to read and write relapse into illiteracy as fast as they acquire this skill for want of libraries and literature.

Literacy is not an end, but a means, "a contribution to the liberation of man and to his full development."[28] Some of the measures taken by the Third World countries for sustaining literacy, as surveyed by the Unesco Institute for Application were: newspapers, wall papers, magazines, texts/literature prepared for post literate supplementary readings,[29] etc. All this and extension literature produced by agencies like agriculture, health, banks and media people, etc. require an agency which can be none other than the library. Therefore, in these countries, literacy programmes are developing literacy centres. As reported by J.N. Newa, many countries in Africa have such rural libraries as part and parcel of literacy section.[30] In India, the National Literacy Mission also makes provision of libraries for post literacy period under Jan Shikshan Niloyam Scheme.[31] These

libraries, though fully integrated with literacy programme, are isolated efforts and not components of national library and information structure of these countries. They may be duplicating efforts. They cannot cope up with the ever increasing volume of information and ever changing needs of the users. Besides, a library needs perennial financial source to remain live and be able to draw from the national system to provide information to one and all.

Any national policy, whether defacto or dejure, is inherently political will of a country. It has been rightly observed that "policy makers can hire intelligent articulate economists to support with research and argument any particular policy or programme they wish to support."[32] H.K.Mchombu in his paper: Which way African Librarianship', sums up the situation, "Governments and decision makers do not fully support libraries. In particular, they have failed to institute and legislate national information policy."[33] Political will, which is essential for accepting and implementing NPLIS does not, in most of these countries, perceive it important. It is not on their priority list. In India also it has yet to be accepted by the Government of India and after that at various state and local levels.

For implementing policy, finance is the driving force. Many Third World countries were witnessing economic growth and expansion till recently. Unfortunately, the economic crisis and stagflation have put these countries in tight financial position. The debt of these developing nations has risen sharply. Each country now finds itself with much more limited resources than were available a few years earlier, on the one hand, and increase

in population on the other hand, which means more mouths to eat, more to be educated and provided other amenities. Financial situation of education surveyed by Eicher indicates that " Only a small minority of countries are increasing their effort, while a strong majority are reducing it".[34] Library and information services require besides manpower, reading materials, prices of which are sky rocketing. In such situation, providing obligatory schooling or educating to all or a network of library and information system reaching all in these countries is more a wish than a reality.

Science and technology information is given top priority thanks to UNISIST, UNISIST II and Unesco and information technology. Most of the Third World countries have infrastructure for this sector of information system though not as advanced as that of the advanced countries. They are participating in international information systems. Networks and systems are being formed to avoid duplication and wastage. Technology requires enormous initial investment and a lot of funds to maintain it, which is in short supply. Consequently, what should be proportion of expenditure on high tech network infrastructure and the grass root libraries is a moot point?

Thus, the society may be categorised into four segments: the science and technology group the more advanced of the all, the academic system, the public educated and the public neoliterate or illiterate mosily rural and poor to whom NPLIS has to cater to. They are the target groups. On the one end of spectrum is a group highly conscious of information, very dynamic, weilding

power and influence which wants to have access to global information and a lion's share of library and information system expenditure, and on the other extreme end of spectrum is a group, ignorant of power of information, passive and poor, in large number (and whose number is ever swelling), hardly having either infrastructure for getting information or the information sources of their level in the language which they understand and for reaching them requires a colossal initial investment, and continuous maintenance cost and manpower with missionary zeal to awaken and motivate them to use library and information service. National library and information policies proclaim to be all to all but do they honestly give proper priorities to the e weaker segments?

SUGGESTIONS

Awareness is the first prerequisite for use of any service or product. It is the starting point of any movement. The Third World countries attempt to build their library and information system on the model of developed countries. People swear by the services provided by the American libraries. It was shocking to learn that in such an information society, Alliance for excellence: a nation at risk omits reference both to the library and information resources and services. Library service is not only to be provided but it must be thought/perceived as an integral part of education, information, development and recreation scene. We have to convince the population that a library is important in their lives. Awareness is essential for preparing public to use the services; to build pressure to provide a service and to educate the prominent citizens, the

community leaders, legislators, the bureaucrats and the government, the importance of library and information services in the country. Evidently, it is compellingly necessary that the Third World countries make a drive in this direction and launch vigorously a compaign at international, national, regional and local levels through various media and marketing strategies.

Many programmes such as quiz are held/shown/viewed, which ask for information or provide information. To give information means to satisfy this urge at one time but to tell the source for getting information is to train people to get their information, throughout the life. Therefore, such programme organisers be encouraged to cover books and libraries to make people aware of them and how to find their information through them.

In my opinion, unfortunately, in the Third World countries, as in everything so also in library and information services, the minority of elite are getting more attention than the majority. This has created further stratification on educational basis. The services are not accessible universally. Obviously, this lacuna needs to be corrected by providing high priority in the NPLIS to the grass root village and school libraries. This will incidently build the model from bottom to top. It will not only make prospects for higher achievements,[36-37] but will also provide motivation to use information and libraries, that there is more in this world "that could be exciting to know that there are ways of finding out and that there may be both pleasure and profit in such knowledge."[38] Once the habit is inculcated and interest stimulated, there is more likelihood of its being integrated in

the lives of masses.

As a corollary to it, it is necessary to train manpower in rural librarianship. So, special courses should be offered in this area in library and information education in the Third World countries. The thrust of the courses should be to study information seeking behaviours and needs of these people, how to motivate them to make use of library and information services, and how to integrate these services in their lives/work/communities.

New technologies present images and sounds, which make them more rich in communication than the printed media. Research indicates that this media permits user experience of social presence, so its "sociability, warmth and personalness and sensitivity is next to face to face communication". [39] Hence, it seems congruent with the oral and traditional culture of the Third World countries. There is a need for producing documents in the media for libraries; conducting research how to make them effective as also produce them economically. This requires innovation, imagination and experiments. Cooperation is required of authors, publishers, illustraters and librarians in production of materials for newly literates in the local languages. Therefore, universities, media centres, other such organisations and international agencies may be persuaded to take up this challenging work. Possibly, later on, there may be need for international agency for development of rural library and information sources and services, to give a lead in this direction, and to assist in exchange of information among the Third World countries.

Illiteracy and poverty go together. "Alleviation of poverty and

eradication of illiteracy are integral parts of the development".[40] Therefore, the General Assembly of the United Nations declared 1990 as International Year of Literacy. Many international bodies such as Unesco, Unicef, UNDP, World Bank have recognised the vital role of libraries as partners in promoting and supporting literacy,[41] to remedy the costly social and intellectual waste in relapse in illiteracy. As a logical consequence of it, it is suggeted that the United Nations declare International Year of Library to make public, organisations and governments conscious of need for library and information services for individual advancement and national growth and thereby assist in creating political will in favour of library and information policy so essential for information have-nots to join the fraternity of information society.

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MANPOWER PREPARATION FOR DEVELOPMENT AND IMPLEMENTATION OF INFORMATION POLICIES

by

Sajjad ur Rehman
Head, Department of Library and Information Science
International Islamic University
Petaling Jaya, Selangor, Malaysia

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MANPOWER PREPARATION FOR DEVELOPMENT AND IMPLEMENTATION OF INFORMATION POLICIES

Education, training and retraining of adequate manpower has always been considered one the foremost concerns; whether it was an effort for conceiving a national information system or it concerned formulation and implementation of information policies. The NATIS concept was defined around a 12-point statement of objectives for national action and one of these points referred to manpower resources.[1] The scope of information policy, defined by Ines Wesley-Tanaskovic, also had a detailed section on manpower as a fundamental resource.[2] One institutional vehicle for the preparation of this needed manpower has been in the form of programmes of library and information studies. Presumably these programmes are the primary means for creating an understanding among the professionals about the role and dynamics of information in the policy context of politico-socio-economic surroundings and cultural milieu of a specific situation. The information personnel are expected to develop the needed competencies by going through the educational indoctrination in a programme of information studies which qualifies an individual to become an entry-level professional. These programmes have been undergoing major transformations in their nomenclatures, orientation, content and character eversince they assumed their role. A recent thrust on information-based theoretical constructs and applications has prompted them to incorporate fresh dimensions in their curricula and instructional practices. There is a growing realisation that definition and implementation of information policy in a given context would largely depend on the preparedness of professionals at different levels of conceptualization, application and direction.

As we discuss different aspects of information policy, it seems imperative to examine the preparedness of these education programmes in imparting essential understandings and skills related to this component. One objective measure for such an attempt would be to study the curricula of these programmes to ascertain the extent to which information policy has been covered in them. This paper attempts to provide an analytical review of the extent of coverage and its nature in the library and information study programmes of North America and three Asian countries located in different regions.

FRAMEWORK

Examining the coverage of information policy component in curricula requires construction of a precise framework which would serve as a criterion for the purpose of measurement. In order to develop a befitting framework, basic concepts related to information policy need to be clearly delineated.

The term 'policy' has a simple and straightforward connotation of a plan of action, or a statement of aims and objectives, but defining the scope of information seems to be unwieldy and cumbersome. The scope of information becomes all encompassing when it treats traditional agencies for distribution of information as a small segment of the overall information industry which would include the occupations related to education, health, entertainment, trade and stocks, brokerage, advertising, telecommunication and computing, among many more.[3] Still there is a traditional breed of information professionals who would love to restrict the use of the term to be applied to the available body of data stored in a variety of media which subjects itself to the orthodox functions of storage, organisation, processing, manipulation, packaging,

dissemination, distribution and interpretation. The combination of information and policy into one term lends itself to diverse interpretations. The field of library and information studies has gradually recognised its cross-disciplinary underpinnings and has increasingly accommodated inter-disciplinary approaches and twinning of its academic programme with many disciplines. Information policy definition efforts were spearheaded by UNISIST and Unesco through various programmes of UBC, NATIS, UAP and GIP during 1970s and 1980s which embraced a broad definition of the term by taking into cognizance the intervening roles of cognate policies in the fields of education, health, environment and economics. The GIP guidelines have treated the term with a broad connotational scope, which does not restrict it to library-based informational activities.[4] Translating this scope into a national information policy has received some criticism in the process of developing Malaysian national information policy document. Certain operational ambiguities were noted and the scope was limited to cover only the functions of libraries, documentation and information centres.[5] Earlier, Wijasuriya had also recorded a similar observation.[6] The prevalent trends in the education of library and information studies, however, indicate use of a wider scope of information policy.

Another confounding element has been the pre-occupation of international agencies with the development of national information infrastructures and policies. Development of guidelines has also been accomplished using the same national perspectives. Baark had reviewed the information policy situation of India and China and had concluded that no prescriptive model can be super-imposed on local conditions of a country.[7] Liebaers had lashed at Unesco for its manifestation of fantasy in the form of super-systems.[8] This has blurred the scope of information policy in the

professional literature where too much emphasis has been placed on the mechanistic and logistic aspects of information policy definition and implementation at national level.

To develop a framework for information policy, different sources were used. The 12-point objective for national action and Guidelines on National Information Policy provided general ground-work in addition to highlighting the national perspective.[9-10] An extensive review of the catalogues of library and information study programmes was made to develop an inventory of all the related concepts. Drawing a clear line of demarcation between information study/information science and information policy becomes quite difficult at times. This profile, however, has been developed to identify those aspects of the field which are related to the conceptual, strategic or operational plans of action of information studies. It was considered appropriate to derive a set of core concepts from this profile which would serve as an operational framework for this study. Many theoretical, applied, technological and managerial aspects of information studies had to be excluded from the framework of the study on two grounds: (1) these were not part of the primary policy concerns, and (2) these have already been examined by studies of information science curriculum evaluation.[11-15] The information policy profile has been constructed around different perspectives.

PROFILE

1. Theoretical Perspective: science of information; inter-disciplinary nature and interacting disciplines of information science; dynamics of information; properties of information; communication theories and patterns; epistemological issues

2. Applied Perspective: information processing: organisation, classification, vocabulary, indexing; study of information needs and information seeking behaviours: use versus non-use , investigative tools and competencies, community analysis; information resources; information services; information environment; information resources management; quantitative analysis approaches and techniques
3. Institutional Perspective: study of the needs in a specific organisational context; organisation-based system development including management information systems and decision support systems; analysis, design and evaluation of an information system
4. Technological Perspective: policy issues related to information security, safety of information systems; ethico-legal issues related to use of personal information; surveillance and privacy rights; database design: access and retrieval issues; hardware, software and storage media; telecommunication infrastructure
5. National Perspective: role of information in national context; publishing and distribution of information; design of national, regional or sectoral systems or networks; issues related to freedom of access and copyright; archival policies; public information organisation and access; interaction with other policies: economic, educational, science and technology, agricultural, environmental and health
6. International Perspective: role of international agencies; access to information across national boundaries; international cooperation and resource sharing

OPERATIONAL FRAMEWORK

Using the afore-stated criteria, a hard-core of eleven topical categories was derived from the detailed profile. The same categories were used for

the examination of catalogues to determine their extent of coverage or nature, coding of coverage by using specific scales, data analysis and report writing. In the subsequent sections these topical categories have been referred to, but their definition and scope have been provided in this section.

After describing the scope of a topical category, some additional notes have been provided in order to lay down an objective criterion for assessment and comparison.

1. Information Environment: value of information in socio-cultural context; socio-politico-economic factors influencing information market and related policy issues
2. Information Needs and Use or Non-Use of Information: study of information seeking behaviours; policies related to promotion and marketing of information
3. Information Systems: infrastructural components; design and evaluation of systems; information networks across institutional or regional boundaries. Technological aspects related to hardware, software or system analysis techniques are excluded from the scope.
4. Information Policy Issues: access; literacy; reading; censorship; copyright; special services for disadvantaged; access to public information; organisation and services of public documents
5. Manpower Preparation for Information Services: information market needs; planning; role of training programmes
6. Roles and Contributions of Information Agencies: national libraries; public library or academic library systems; resource sharing systems; role of professional associations
7. Legislation: legislation regulating access, information rights, public library services
8. Technological State and its Impact: telecommunication, computing

and other information technologies impacting on the information policy.

Technical courses dealing with hardware, mechanical or electronic know-how, and data management were excluded.

9. Publishing and Distribution of Information: relationship with other institutions; impact on information policy. Course contents dealing with printing or technical aspects of editing or publishing are excluded.
10. Information Policy Development and Implementation: process of definition of information policy; development, adoption and implementation strategies; roles of responsible agencies
11. International Dimensions: access to international information; role of international agencies

PROCEDURES

Programme catalogues, descriptive brochures or similar documents were acquired from 48 library and information education institutions; 35 from the North American continent, and 13 from three developing countries namely Pakistan, Saudi Arabia and Malaysia. The selection was made keeping in view a variety of factors: (1) this should allow assessment of an overall picture which required representation of both the developed and developing nations, (2) an intimate familiarity with the educational set-up and curriculum structure was needed so as to interpret the documentation appropriately for the purpose of data coding, and (3) the number of academic programmes in the three developing countries was small and all of them were included in the study whereas catalogues of 35 schools of the North American continent were used which could become available at the time of study, but these adequately represented different regions as well as degree programmes. The composition of the North

American programmes included in the study has the following features: all of them are accredited; 20 of them offer doctoral programmes while 15 have Master degree, dual degree or specialist degree offerings; two of them are Canadian and the remaining 33 represent eastern and western coasts and Northern, Southern and Mid-Western regions. Programme description of one Malaysian school was also included, though enrolment of students has been suspended since 1989. Appendix 1 lists all the programmes which were covered by this study. Documentation of some European programmes was procured but these were excluded as they could not be subjected to a consistent treatment. The curricula of some of these countries have been structured around annual system and the distinction between required or elective courses was somewhat blurred, probably due to the fact that the researcher was unfamiliar with the system.

School catalogues were examined to discern the amount of coverage accorded to the information policy framework developed for this study. Another dimension considered worth-examining was related to the nature of the relevant course offerings; part of the required core, an elective one or a seminar course or a part thereof. One observation about the school catalogues was that these did not describe curricula in a consistent manner. This variation is manifest in both the description style and also with regard to the amount of information provided therein. Most of them provided a discrete enumeration of all the components of a course, yet few described them in the form of statements of objectives which are not as specific or revealing. Another important observation is that these assessments were based only on the course descriptions provided in the catalogues and did not take into account actual offerings of these courses. Inclusion of a course in the curriculum was interpreted as an expression of the intent of the curriculum designers. The results of this study may also be studied using the same perspective. Extrapolating on

the same, it also needs to be taken into account that this review was based on course descriptions and not on the content which might have been actually imparted by the instructors. Many instructors would take the liberty to interpret the stated curricula according to their own understandings, insights, interests, or a variety of other factors which may lead to departure from the course descriptions in school catalogues. Most recent catalogues of the programmes of library and information studies were acquired. All of them save three indicated their coverage for the years 1989-93. Curriculum changes in the developing countries are both infrequent and slow. The curricula examined from these countries are being used in the current academic year without any change. One curriculum document was used which has not been developed by any of the six graduate programmes in Pakistan, but it was adopted by the University Grants Commission in 1991 and has since been recommended for implementation by the six programmes.[16]

School catalogues were examined and information about the coverage of information policy related course-work was recorded by using two scales. The first scale was used to measure the extent of coverage of all the courses or discrete component(s) in an individual course which belonged to eleven topical categories defined as information policy domain for the purpose of this study. The second scale was used to record the nature of course-work whether it was part of the required core, an elective, or a seminar. The afore-cited studies about the evaluation of information science curricula were based on course titles where the unit of measurement was an individual course. Since curriculum design is not dependent on course titles, this treatment becomes superfluous. This study was based on the analysis of components and special scales were constructed to measure the coverage using both the dedicated course or

treatment as courses provided in different schools did not conform to the discrete topical categories framed for this study. The second difficulty was that different treatments are given to topical categories in various programmes; one offering many courses for one category while the other has one or more than one component in one or as many courses. 'Extent of Coverage' scale has a breakdown of six measurable units: (1) no coverage, (2) one component in a course, (3) components in different courses, (4) one course, (5) two courses, and (6) more than two courses. Construction of the second scale for the 'nature of course' was relatively straightforward. The only consideration was to examine whether a course or a component belonged to one of the four discrete units: (1) required course/component in the core, (2) elective course, (3) seminar course, and (4) course for advanced programme. The last unit indicated only such courses which were reserved for post-master degree programmes.

FINDINGS

It was found that 3-10 information policy courses or components were available in 33 out of the total 48 schools. About one-fifth of these programmes (20.8%), however, contained 1-2 courses or components. On the other hand, 10.4% of them contained 11-20 courses or components related to different categories. Table 1 displays comparative data about number of relevant courses in the schools of both the developed and developing nations. It is somewhat revealing to note that 5 out of 17 information study programmes (20.8%) in the developing countries had only 1-2 courses or components compared to the proportion of 14.3% in the North American continent. One North American programme had a maximum of 19 relevant courses or components listed in its catalogue.

Table 1 depicts the overall picture of the course offering spans, yet it has two limitations; first, bracketing together a course and a component

TABLE 1
COURSE OFFERING FREQUENCIES

RANGES	DEVELOPED N=35	DEVELOPING N=13	TOTAL N=48
1-2 courses or components	5 (14.3%)	5 (38.5%)	10 (20.8%)
3-5 courses or components	17 (48.6%)	3 (23.1%)	20 (41.7%)
6-10 courses or components	9 (25.7%)	4 (30.7%)	13 (27.1%)
11-15 courses or components	3 (8.6%)	1 (7.7%)	4 (8.3%)
16-20 courses or components	1 (2.8%)	-	1 (2.1%)

TABLE 2
OVERALL EXTENT OF COVERAGE

COVERAGE RANGES	DEVELOPED N=35		DEVELOPING N=13		TOTAL N=48	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Extensive Coverage 41 - 59	5	14.3	1	7.7	6	12.5
Moderate Coverage 21 - 40	8	22.8	3	23.1	11	22.9
Marginal Coverage 11 - 20	14	40.0	3	23.1	17	35.4
Minimal Coverage 1 - 10	8	22.9	9	46.1	14	29.2

has an internal inconsistency, and secondly, this analysis is related to nature of courses and not the extent of coverage. By assigning appropriate values to different units of measurement on the scale of coverage, a more revealing picture was drawn from another angle. Assignment of values was performed using the following table:

Extent of Coverage	Value
one component	1
components in different courses	3
one course	5
two courses	10
more than two courses	20

Extent of coverage accorded to each course or component was the basis for computing the score of each school. Then aggregate score of all the programmes was obtained which was an indicator of the coverage of each information policy component in the overall body of curricula of these programmes. Table 2 displays results of this analysis.[1] Fourteen out of the 48 programme (29.2%) attained scores in the range of 1-10 which was considered minimal coverage whereas six programmes (12.5%) had their scores in the range of 41-59, treated as extensive coverage. The remaining 28 programmes (58.3%) had their coverage in the ranges of 11-20 and 21-40, considered marginal and moderate respectively. Among the 13 programmes of the three developing nations, six (46.1%) fell in the category of minimal coverage as compared with 22.9% of the Western programmes. Having the categories of moderate and extensive coverage grouped together, it was observed that 37.1% programmes of the developed world belonged to this group as compared with 30.8% of the developing countries. It implies that both the analyses reported in Tables 1 and

2 are mutually supportive and confirm that the overall extent of coverage is weaker in the information study programmes of the developing countries. However, this categorization of minimal, marginal, moderate and extensive coverage is internally relative and is not being interpreted against some external norm or standard. This macro-view helps in depicting an overall picture, but only a micro-analysis for the eleven topical categories can elicit meaningful data for deriving worthwhile conclusions.

As was done in an earlier analysis for table 2, the same table of values for different scale units was applied to the eleven topical categories for the extent of coverage. Table 3 shows the results of this exercise in the form of a rank order of coverage of each topic. Apparently five out of the eleven topics received minimal or no coverage. These are: roles and contributions of information agencies, international dimensions, legislation, information policy development and implementation, and manpower preparation for information services. The topics which received the best coverage in relative terms included: information systems, use and non-use of information, information environment, and information policy issues. Differentials between the two categories of developed and developing countries were notable as the coverage of the category of use and non-use of information in developing nations was minimal compared with its extensive coverage in the developed nations. Likewise, publishing and distribution industry category received a low score in developing countries. The only category where the developing countries scored higher was related to legislation. These results might be skewed in this rank order as a category might be having more than two courses in two schools, resulting in a score of 40 whereas one elective course in seven different schools would mean a score of 35. This analysis has brought forth useful depiction of the overall coverage of topical categories, yet treatment of an individual topical category in different schools by using both the measures of nature of course or extent of coverage is better discernible

Table 3
RANK ORDER OF TOPICS BY EXTENT OF COVERAGE

Topical Category	Total N=48	Developed N=35	Developing N=13
1. Information System	189	148	41
2. Use and Non-Use of Information	173	168	5
3. Information Environment	168	144	24
4. Information Policy Issues	150	134	16
5. Technological State and Impact	124	92	22
6. Publishing and Distribution Industry	87	79	8
7. Roles and Contributions of Information Agencies	27	8	19
8. International Dimensions	22	17	5
9. Legislation	8	3	5
10. Information Policy Development & Implementation	7	7	0
11. Manpower Preparation for Information Services	0	0	0

from tables 4 & 5 respectively.

Table 4 provides frequencies of nature of courses or components (required, elective, seminar, advanced) for all the eleven topical categories of information policy. Distribution by nature, however, does not provide any distinction whether courses assigned to a topic were dedicated or there was only a single component provided for that topic. Table 5 was constructed to illustrate the treatment of each topical category for its extent of coverage. In order to examine the treatment accorded to a topic by both the nature of a course and its extent of coverage, both the tables 4 & 5 need to be subjected to a concurrent review. As this micro-review at topical level is expected to be instrumental in furthering valid conclusions, it is considered desirable that each topic be treated separately, based on the data available in both the tables. One preliminary observation about the programmes in developing nations was that no seminar or advanced course was offered by them which was related to information policy content.

Information Environment: Thirty five out of the 48 programmes (27.1%) did not provide any coverage to this topic. Seven schools in North Amerita offered two or more courses in this area. Fourteen schools in North America and four in the developing nations had one or more components related to this category. One elective course was listed by six and four schools in North American and Asian countries respectively. Another significant finding was that 17 schools treated it as part of required core while elective curses were found in 21 programmes.

Use and Non-Use of Information: Twenty of the 48 programmes listed no course related to this area; 10 (28.6%) from the North America and 10 (76.9%) from the Asian schools. Twelve schools from the first group and three from the second had it in the form of one or more components. Seven North American schools had two or more dedicated courses in this area

TABLE 4
NATURE OF INFORMATION POLICY COURSES

CATEGORY	DEVELOPED N=35				DEVELOPING N=13				TOTAL N=48			
	Required	Elective	Seminar	Advanced	Required	Elective	Seminar	Advanced	Required	Elective	Seminar	Advanced
1. Information Environment	13	18	4	2	4	3	0	0	17	21	4	2
2. Use & Non-use of Information	4	22	4	2	1	5	0	0	5	27	4	2
3. Information System	2	16	5	2	0	10	0	0	2	26	5	2
4. Information Policy Issues	3	23	2	3	0	12	0	0	3	35	2	3
5. Manpower Preparation for Information Services	0	0	0	0	0	0	0	0	0	0	0	0
6. Roles & Contributions of Information Agencies	0	4	0	0	2	9	0	0	2	11	0	0
7. Legislation	0	3	0	0	1	4	0	0	1	7	0	0
8. Technological State & Impact	0	10	4	0	0	4	0	0	0	14	4	0
9. Publishing & Distribution Industry	0	14	1	1	4	0	0	0	4	14	1	1
10. Information Policy Development & Implementation	0	0	2	0		1	0	0	0	1	2	0
11. International Dimensions	0	9	3	0	0	5	0	0	0	14	3	0

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TABLE 5
COVERAGE OF INFORMATION POLICY COURSES

CATEGORY	DEVELOPED N=35						DEVELOPING N=13						TOTAL N= 8					
	No Coverage	Component (s) in one course	Component (s) in different courses	One Course	Two Courses	More than two courses	No Coverage	Component (s) in one course	Component (s) in different courses	One Course	Two Courses	More than two courses	No Coverage	Component (s) in one course	Component (s) in different courses	One Course	Two Courses	More than two courses
1. Information Environment	8 22.9%	9 25.7%	5 14.3%	6 17.1%	5 14.3%	2 5.7%	5 38.4%	4 30.8%	0 0%	4 30.8%	0 0%	0 0%	13 27.1%	13 27.1%	5 10.4%	10 20.8%	5 10.4%	2 4.2%
2. Use & Non-use of Information	10 28.6%	9 25.7%	3 8.6%	6 17.1%	2 5.7%	5 14.3%	10 76.9%	2 15.4%	1 7.7%	0 0%	0 0%	0 0%	20 41.7%	11 22.9%	4 8.3%	6 12.5%	2 4.2%	5 10.4%
3. Information System	13 37.1%	8 22.9%	0 0%	8 22.9%	2 5.7%	4 11.4%	7 53.8%	0 0%	2 15.4%	3 23.1%	0 0%	1 7.7%	20 41.7%	8 16.6%	2 4.2%	11 22.9%	2 4.2%	5 10.4%
4. Information Policy Issues	8 22.9%	14 40.0%	5 14.3%	3 8.6%	1 2.9%	4 11.4%	5 38.4%	5 38.4%	2 15.4%	1 7.8%	0 0%	0 0%	13 27.1%	19 39.6%	7 14.6%	4 8.3%	1 2.1%	4 8.3%
5. Manpower Preparation for Information Services	35 100%	0 0%	0 0%	0 0%	0 0%	0 0%	13 100%	0 0%	0 0%	0 0%	0 0%	0 0%	48 100%	0 0%	0 0%	0 0%	0 0%	0 0%
6. Roles & Contributions of Information Agencies	31 88.6%	3 8.6%	0 0%	1 2.8%	0 0%	0 0%	7 53.8%	3 23.1%	2 15.4%	0 0%	1 0%	0 0%	38 79.1%	6 12.5%	2 4.2%	1 2.1%	1 2.1%	0 0%
7. Legislation	32 91.4%	3 8.6%	0 0%	0 0%	0 0%	0 0%	10 76.9%	2 15.4%	1 7.7%	0 0%	0 0%	0 0%	42 87.5%	5 10.4%	1 2.1%	0 0%	0 0%	0 0%
8. Technological State & Impact	24 68.6%	2 5.7%	0 0%	6 17.1%	0 0%	3 8.6%	10 76.9%	2 15.4%	0 0%	0 0%	0 0%	1 7.7%	34 70.8%	4 8.3%	0 0%	6 12.6%	0 0%	4 8.3%
9. Publishing & Distribution Industry	19 54.3%	4 11.4%	0 0%	9 25.7%	1 2.9%	2 5.7%	9 69.2%	3 23.1%	0 0%	1 7.7%	0 0%	0 0%	28 58.3%	7 14.6%	0 0%	10 20.8%	1 2.1%	2 4.2%
10. Information Policy Development & Implementation	32 91.4%	2 5.7%	0 0%	1 2.9%	0 0%	0 0%	13 100%	0 0%	0 0%	0 0%	0 0%	0 0%	45 93.7%	2 4.2%	1 2.1%	0 0%	0 0%	0 0%
11. International Dimensions	22 62.8%	12 34.3%	0 0%	1 2.9%	0 0%	0 0%	8 61.5%	5 38.5%	0 0%	0 0%	0 0%	0 0%	30 62.5%	17 35.4%	0 0%	1 2.1%	0 0%	0 0%

while no full-fledged course was found in the curricula of the developing nations. Four schools in North America and one school in a developing country treated it as part of the required core whereas in 22 and 5 instances it was related to electives respectively.

Information System: Twenty schools (41.7%) did not provide any course in this area. Eight programmes from the developed nations and two from the other group had course components related to this topic. One course was provided by 8 and 3 schools respectively. Six programmes in the former and one in the latter groups listed two or more courses. Two North American programmes listed them as part of the core, 16 had them as electives, while 7 had them as seminar or advanced courses. On the other hand, ten courses related to this category were listed as electives in the schools of developing countries.

Information Policy Issues: Thirteen schools (27.1%) did not list any course in this area; eight (22.9%) from the developed and 5 (38.4%) from the developing blocks. Nineteen (50.3%) and seven (55.8%) had one or more components related to this category respectively. Five North American schools (14.3%) had two or more courses in this area as compared with nine in the other group. Three such cases were part of the core in North American schools, but no school in the developing nations had listed any such course in their cores. Twenty-three cases of electives and five of seminar or advanced courses were listed in the North American schools as compared with twelve electives in the developing nations.

Manpower Preparation for Information Services: No course or component was listed in the documentation of any of the programmes in either group.

Roles and Contributions of Information Agencies: Ten programmes provided course-work related to this area; four (11.4%) from the developed and six (46.2%) from the developing countries. Three and five of them listed components while one from the first group listed one course while one programme in the school of a developing nation listed two courses. Four

electives were mentioned in the catalogues of the North American continent whereas two cases of required core and nine components of electives were found in the schools of developing nations.

Legislation: Only six schools listed relevant course-work; three from each of the two groups. These were in the form of components; all electives except one component listed as part of the required core in a school from a developing nation.

Technological State and Impact: Fourteen schools listed relevant course-work; eleven (31.4%) from the developed and three (23.1%) from the developing nations. Among the North American schools these had the following distribution: two as components, six as one course, and three having more than two courses. From the other category, two had it in the form of components while one had more than two courses. The number of electives was 10 and 4 in the respective groups, while 4 seminar-based cases were listed in the North American schools.

Publishing and Distribution Industry: Twenty schools listed course-work in this area; 16 (45.7%) from the North American and 4 (30.8%) from the Asian nations. Four and three schools in both groups had it as components; nine and one had listed one course, and three North American schools listed two or more such course. Fourteen cases from the North American continent and four from the Asian countries listed them as electives while one case pertained to seminar and another to an advanced course in the North American schools.

Information Policy Development and Implementation: Three North American schools listed course-work in this area; two as components, and one as a dedicated course, all of which belonged to seminar courses.

International Dimensions: Eighteen schools listed courses pertinent to this category; 12 out of the 13 North American schools offered them as components of courses while one listed a course. All the five from the developing nations had them as components. The North American schools

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TABLE 6

COURSE OFFERING DISTRIBUTION BY NATURE OF COURSES

CATEGORIES	DEVELOPED N=35	DEVELOPING N=13	TOTAL N=48
I. **Required Courses or Components**			
1-2 courses or components	12 (34.3%)	8 (61.5%)	20 (41.7%)
3-5 courses or components	3 (8.6%)	0	3 (6.3%)
II. **Elective Courses or Components**			
1-2 courses or components	12 (34.3%)	4 (30.8%)	16 (33.3%)
3-5 courses or components	15 (42.9%)	4 (30.8%)	19 (39.6%)
6-10 courses or components	6 (17.1%)	3 (23.1%)	9 (18.8%)
11-20 courses or components	1 (2.9%)	1 (7.7%)	2 (4.2%)
III. **Seminar Courses or Components**			
1-2 courses or components	8 (22.9%)	0	8 (16.7%)
3-4 courses or components	5 (14.3%)	0	5 (10.4%)
5-6 courses or components	1 (2.9%)	0	1 (2.1%)

listed nine of them as electives and three as seminars whereas all of them were treated as electives by schools in developing countries.

Available data were also analysed to examine distribution of courses by their nature; required, elective, or seminar. Table 6 displays results of analysis from this dimension. It was found that 42.9% of the schools from the developed and 61.5% from the developing nations had required courses or components related to information policy content, though all the schools from the developing countries had 1-2 courses or components listed as part of core as compared to 8.6% of the North American Schools listed 3-5 courses or components. Forty-six (95.8%) schools in both categories had listed elective courses; about 77% of the schools in North America listed 1-5% courses or components as compared with 61.6% of the schools in the developing countries which offered courses or components in the same range. One significant finding was that no school in the three developing nations had listed any seminar course while 22.9% of the North American schools listed 1-2 such courses or components, 14.3% listed 3-4, and one had them in the range of 5-6.

CONCLUSIONS

The findings of this study have indicated that certain components of the information policy framework used in this study are not being covered at all or that their coverage is minimal in few schools. The topical categories which are least covered include: manpower preparation for information services, development and implementation of information policies, information provision and access, roles and contributions of information agencies, and technological state and its impact on information policy. Imparting of relevant concepts in these areas may not

be feasible or desirable within the cores of their programmes, but no elective or seminar course-work has even been listed in most of the catalogues of these programmes. These areas are vital for the contemporary information policy issues. If not at a lower level, it would be all the more important that doctoral programmes may introduce course-work in the form of seminars in these areas.

Information policy topics have been covered in the core curriculum of about one-third of the information study schools. These topics are related to information environment, information policy issues, and use or non-use of information. It can be justifiably interpreted that these schools are trying to impart basic understandings about information dynamics in social context, issues related to access of information, and analysis of information seeking or non-seeking behaviours among their graduates. However, there may be as many programmes which have disregarded these components altogether and no coverage was noticed for them as a course or even as a component in any core, elective or seminar course. These topics serve as a hard-core for theoretical constructs and applied concerns of the information policy and their total exclusion is worth the attention of the designers of information study curricula.

If the information policy framework used in this study is taken as a whole, it can be safely concluded that about one-third of the information study programmes cover it minimally. Almost half of the information study schools in the three Asian countries offer little coverage for this component. Considering the lofty campaigns of universal access, development of information infrastructures and definition of national information policies launched by UNESCO, IFLA and FID, these appear to be somewhat ineffective in terms of having been translated into the programmes of information studies. Another aspect is also worth

consideration whether certain amount of inertia underlying the static curricula is attributable to some professional resentment as well as bureaucratic inhibitions prevalent in the environments of parent institutions. These programmes have largely been following the curriculum trends of the developed nations, but the time-lag becomes more noticeable in the face of rapid changes in information technology, media and ever-increasing avenues of access to information. It is high time that international agencies pay more attention to vital needs of education of professionals about the information policy aspects through a coherent body of curricula.

This study also indicates that information study schools with doctoral programmes are quite different from the rest with regard to their provisions for information policy components. All the seven schools containing a sizeable amount of course-work for information policy in their curricula offer doctoral programmes. As doctoral students are expected to be more mature and analytical to deliberate on a variety of information policy concerns, these schools are offering seminar courses, some of which are only reserved for doctoral students. One of such programmes has relevant contents in as many as nineteen courses or components of courses, ten of which were seminar courses. One of these programmes has recently been developed with the unique features of information policy programme by drawing upon six disciplines for a multi-disciplinary treatment in its Ph.D. programme. These non-traditional programmes are relaying a strong message that new directions of curriculum design would be imminent where information policy would serve as the primary focus. There seems to be a dire need of careful articulation of the scope and treatment of information policy as a discipline in order to appropriately address the fast-changing needs of the information market. A new era of information policy has already heralded and the education

programmes in the developing countries need to catch up with the pace and momentum to save themselves from undesired obscurity or obsolescence.

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Appendix I

1. School of Information and Library Studies
University of North Carolina, Chapell Hill, USA

2. School of Library and Information Science
University of Wisconsin-Milwaukee, USA

3. College of Library and Information Services
University of Maryland, USA

4. Faculty of Library and Information Science
University of Toronto, Canada

5. School of Library and Information Science
The University of Western Ontario, Canada

6. School of Library and Information Science
University of Pittsburgh, USA

7. College of Information Studies
Drexel University, USA

8. School of Library and Information Studies
The University of Oklahoma, USA

9. School of Library and Information Studies
University of Michigan, USA

10. School of Information Studies
Syracuse University, USA

11. School of Library and Information Studies
University of California, Berkley, USA

12. Graduate School of Library and Information Science
University of California, Los Angeles, USA

13. School of Information Science and Policy
College of Public Affairs and Policy,
University of Albany, USA

14. School of Library and Information Science
Indiana University, USA

15. Graduate School of Library and Information Science
Simmons College, USA

16. Graduate School of Library and Information Science
The University of Texas at Austin, USA

17. College of Library Science
Clarion University, Pennsylvania, USA

18. School of Library and Information Studies
Florida State University, USA

19. School of Library and Information Studies
University of Wisconsin Madison, USA

20. College of Library and Information Science
University of Kentucky, USA

21. School of Communication, Information and Library Science
Rutgers University, USA

22. School of Library and Information Science
University of South Florida, USA

23. School of Library and Information Studies
University of Hawaii, USA

24. School of Library and Information Science
Louisiana State University, USA

25. Graduate School of Library and Information Science
University of Illinois at Urbana-Champaign, USA

26. Graduate School of Library and Information Studies
Queens College of the City University of New York, USA

27. Library Science/Instructional Technology/Adult Education
Southern Connecticut State University, USA

28. Department of Library and Information Studies
Northern Illinois University, USA

29. Department of Library Science
University of Arizona at Tuscon, USA

30. School of Library and Information Science
University of Missouri Columbia, USA

31. School of Library Science
Kent State University, USA

32. School of Library and Information Management
Emporia State University, USA

33. Graduate School of Library Service
University of Alabama, USA

34. School of Information and Library Science
Pratt Institute, USA

35. Graduate School of Library and Information Science
Rosary College, USA

36. Department of Library Science
University of the Punjab, Pakistan

37. University Grants Commission, Islamabad, Pakistan

38. Department of Library and Information Science
University of Peshawar, Pakistan

39. Department of Library and Information Science
University of Karachi, Pakistan

40. Department of Library and Information Science
Sind University, Pakistan

41. Department of Library and Information Science
Baluchistan University, Pakistan

42. Department of Library and Information Science
Bahawalpur University, Pakistan

43. School of Library and Information Science
Mara Institute of Technology, Malaysia

44. Library and Information Science
Institute of Advanced Studies
University Malaysia

45. Department of Library and Information Science
International Islamic University, Malaysia

46. Department of Library and Information Science
King Saud University, Riyadh, Saudi Arabia

47. Department of Library and Information Science
King AbdulAziz University, Jeddah, Saudi Arabia

48. Department of Library and Information Science
Imam Muhd bin Saud University, Riyadh, Saudi Arabia